

Signature copy
ARRCOM ROD

17.3

RECORD OF DECISION
DECLARATION, DECISION SUMMARY,
AND RESPONSIVENESS SUMMARY
FOR

ARRCOM
RATHDRUM, IDAHO

JUNE 1992

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 SIXTH AVENUE
SEATTLE, WASHINGTON

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USEPA SF



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DECLARATION
ARRCOM
SUPERFUND SITE

SITE NAME AND LOCATION

Arrcom
Rathdrum, Idaho

STATEMENT OF PURPOSE

This decision document presents the no further action decision by the U.S. Environmental Protection Agency (EPA) for the Arrcom Superfund Site in Rathdrum, Idaho. The no further action decision was developed in accordance with the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

This decision is based on the Administrative Record for this site. The attached index identifies the documents that comprise the Administrative Record upon which the selection of the no further action decision is based.

The State of Idaho concurs with the no further action recommendation.

DESCRIPTION OF THE SELECTED REMEDY

The no further action decision is based on the post-removal soil and groundwater sampling, the supplemental remedial soil and groundwater sampling and the Risk Assessment. Based on the information currently available, previous removal actions at the site have reduced concentrations of contaminants in soils to levels that do not pose a risk to human health and the environment and has eliminated the need to conduct additional remedial action at the site.

DECLARATION STATEMENT

The no further action decision is protective of human health and the environment. Because the no further action decision does not result in hazardous substances, pollutants, or contaminants remaining at the site above health based levels that allow for unlimited use and unrestricted exposure, a five year review would not be necessary.

Signature sheet for the Arrcom Record of Decision by the U.S.
Environmental Protection Agency.

Dana A. Rasmussen
DANA A. RASMUSSEN
Regional Administrator, Region 10
U.S. Environmental Protection Agency

6-30-92
Date

Signature sheet for the Arrcom Record of Decision by the U.S.
Environmental Protection Agency.

/s/ Dana A. Rasmussen

6-30-92

DANA A. RASMUSSEN
Regional Administrator, Region 10
U.S. Environmental Protection Agency

Date

CONCURRENCE

INITIAL	OK	CK		pm	lm
NAME	ALLANS	KRUEGER	STRINGER	RUSHIN	MILLAM
DATE	6/24	6/24		6/24	6/24

CONCURRENCE

INITIAL	for SMITH				
NAME	SMITH	EMISON	RASMUSSEN		
DATE	6/25/92				

ORC

INITIAL	em	S/V	S/V for IF		
NAME	Mednick	Kowalski	For		
DATE	6/25/92	6/29/92	6/29/92		

DECISION SUMMARY

I. SITE DESCRIPTION

The Arrcom site is an abandoned waste oil recycling facility located 2.5 miles southwest of the City of Rathdrum, in Kootenai County, Idaho (See Figure 1). The property consists of approximately 1.2-acres in the central region of Section 10, Township 51 South, Range 5 West.

The Arrcom site is situated in a rural residential neighborhood with an estimated eight residences located within a one-half mile radius to the north, east, and west. One residential property is adjacent to the northern edge of the site. The site is bounded to the southeast by Highway 53, a Northern Pacific Railroad mainline, and agricultural lands used primarily for growing forage crops. The marshy drainage basin of Lost Creek is located 0.3 mile to the north/northeast. The site is not fenced.

The site is located over the Spokane Valley-Rathdrum Prairie Aquifer, the sole source for public and private drinking water for approximately 350,000 people in Idaho and Washington. Approximately 6,300 of these people live in the primarily rural residential area within three miles of the ARRCOM site.

II. SITE HISTORY AND ENFORCEMENT ACTIVITIES

A. History of Site Activities

Oil recycling operations began at the facility in the early 1960s. During operation, waste oils were trucked to the site, underwent processing, and were sold. The oil recycling operation included an oil/water separation process, a shaking process to facilitate sedimentation, and a heating process to facilitate demulsification.

Waste oil and recycled oil were stored in 27 tanks and 4 truck tanks (Figure 2). Contamination of the environment occurred as a result of past oil spills from the operation and from leaking oil storage tanks. Sludge and waste oils were discarded in at least three disposal pits on the property and was spread on the on-site road.

B. History of Federal Site Investigations and Removal Actions conducted Under CERCLA

The Arrcom site was abandoned in January 1982, and in August a site visit of the facility was conducted. During the site visit, a number of the oil storage tanks were found to be leaking and in general disrepair. Preliminary sampling of the site in June 1982

indicated the waste oils and soils at the facility were contaminated with high levels of solvents, lead and polychlorinated biphenyls (PCBs) and a potential for groundwater contamination existed.

A Site Inspection (SI) report was completed in August 1982 and a Hazard Ranking System score was developed. In December 1982, the Arrcom site was proposed for inclusion on the National Priorities List (NPL) and the site received a final NPL listing in September 1983.

With exceptionally high levels of contaminants and large volumes of waste oils and sludges, emergency response activities were initiated under EPA's removal program to stabilize the site. A three phased removal action was performed at the ARRCOM site in 1983, 1987 and in 1990. Contaminated soils and sludge disposal pits were excavated, and waste oils, tanks and buildings were removed from the site and shipped to off-site hazardous waste landfill and incinerator facilities. Surface soil and waste oils were sampled prior to the 1983 and before and after the 1987 and 1990 removal.

As part of the preliminary investigation and removal action residential groundwater wells in the immediate vicinity of the site were first sampled in August 1982 and then again in 1987. In addition, during the 1987 removal, groundwater monitoring wells were installed at the site. Groundwater samples were taken in 1987, 1989, 1990.

In 1991, EPA performed a comprehensive assessment of the site data generated during the removal actions and conducted a limited sampling effort to fill important data gaps in support of a risk assessment. This information was used to evaluate the current nature and extent of contamination at the site and conduct a risk assessment.

C. Enforcement Activities

Prior to initiating on-site response activities at the Arrcom Superfund Site, EPA notified the owners and operators of the Site of its intent to enter the property and conduct response activities. This Notice of Intent was sent in September of 1983. EPA then initiated and conducted a formal search for potentially responsible parties (PRP) at the Arrcom Superfund Site. This PRP search was followed up by a number of letters requesting information from identified PRPs. In July of 1989, a formal letter was sent to PRPs notifying them of potential liability, demanding the payment of response costs and providing an opportunity to conduct further response activities. Some of these PRPs entered into negotiations with EPA to conduct the work and/or pay for the response costs. In February of 1991, EPA filed a complaint against a number of the PRPS seeking to recover

its response costs. Following the negotiations and the filing of the complaint, a settlement was negotiated with Atlantic Richfield Company, Inc; Columbia Lighting, Inc; Kaiser Aluminum and Chemical Corporation; Warren Bingham; the United States Bonneville Power Administration and the United States Department of Interior. The settlement provides for the payment of \$1,185,500.00 to settle the PRP's liability for all costs incurred up to and including the date of the Record of Decision. The Consent Decree, which was made available for public comment, was entered on March 30, 1992.

III. COMMUNITY RELATIONS HISTORY

CERCLA requirements, under Sections 113 (k)((2)(B)(i-v) and 117, 42 U.S.C. §§ 9613 and 9617 for public participation include releasing the Risk Assessment report and the proposed plan to the public and providing a public comment period to allow for public participation in the decision-making process. EPA met these requirements by releasing these documents to the public in May 1992. These documents were made available by placing them in an information repository in the Rathdrum Public Library and EPA office in Seattle. Notice of a 30 day public comment period on the documents was placed in the Statesman Review newspaper.

To date the following community relations activities have been conducted by EPA.

- March 1987 EPA released a fact sheet announcing the second phase of the removal.
- May 1987 EPA released a fact sheet announcing the completion of the second removal.
- March 1988 Community Relations Plan was completed and included in the site repository.
- April 1990 EPA released a fact sheet announcing the third phase of the removal action and briefly described the first two phases of the removal action.
- August 1991 EPA released a fact sheet announcing need for additional soil sampling.
- April 1992 EPA released a fact sheet announcing the public comment period on the Cost Recovery Consent Decree between the EPA and Potentially Responsible Parties (PRPs).
- May 20, 1992 EPA mailed the proposed plan fact sheet, which explained the results of the risk assessment and EPA's preferred decision for public comment.

- May 22, 1992 A public notice in the Spokesman Review announced the availability of the proposed plan and the risk assessment, and the dates of the public comment period.
- May 22 to June 20, 1992
Public comment period for the proposed plan and risk assessment.
- June 1992 A responsiveness summary addressing comments received during the public comment period on the proposed plan and risk assessment was prepared and attached to this ROD.

IV. SCOPE AND ROLE OF THE RESPONSE ACTION WITHIN THE SITE STRATEGY

EPA has conducted a three phased emergency removal action to stabilize conditions at the site, which posed a threat to public health and the environment. The removal action accomplished the following:

- 1983: 9,700 gallons of waste oils from tanks were removed. 137 cubic yards of contaminated soils removed.
- 1987: 13,255 gallons of waste oils and sludges were removed from tanks and disposal pits. 2,000 cubic yards of contaminated soils removed.
- 1990: 1,653 tons of contaminated soil were removed.

Contaminated soils and waste oils from the three removals were shipped to an offsite hazardous waste landfill and incinerator.

In 1991, EPA performed a comprehensive assessment of the site data generated during the removal action and conducted a limited sampling effort to fill in important data gaps. This information was used to evaluate the current nature and extent of contamination at the site and conduct a risk assessment.

The results of the risk assessment indicate that conditions at the site do not pose a risk to human health or the environment. The removal action has eliminated the need to conduct additional remedial action and the no further action decision is the final response action for this site.

The no further action decision does not result in hazardous substances, pollutants, or contaminants remaining at the site above health based levels and thus allows for unlimited use and unrestricted exposure. Therefore, a five year review is not necessary.

V. SUMMARY OF SITE CHARACTERISTICS

The following discussion presents a general overview of the site including a summary of the removal action, sampling and analysis that was performed as part of the removal action and the sampling and analysis performed in support of the risk assessment.

A. Geology and Soils

The Arrcom facility is located on the northern edge of the Rathdrum Prairie. The Rathdrum Prairie valley trends generally north to south and is bounded on the east and west by bedrock highlands that rise over 1,000 feet above the valley floor.

The geologic setting at the ARRCOM site and its surroundings was greatly influenced by the Pleistocene glacial history of the area. Multiple glacial advances and recessions smoothed valley walls, and eroded most of the pre-existing deposits. The eroded material was then redeposited as till, undifferentiated drift, and lake sediments. Catastrophic floods generated by the periodic, sudden breaching of glacial Lake Missoula removed much of the previously deposited clays and silts, thereby forming the modern landscape. The deposits that remain are coarse textured, ranging from fine gravels to boulders persisting deep below the valley floor.

B. Hydrogeology

The Arrcom site is situated over the Spokane Valley Rathdrum Prairie Aquifer. It is an unconfined sole-source aquifer that provides drinking water for approximately 350,000 people in Idaho and Washington. An estimated 6,300 people are served by both public and private drinking water wells located within a 3-mile radius of the Arrcom facility. The residence closest to the site, located immediately adjacent to the north side of the facility, relies on a private well for its drinking water supply, as do other residences in the immediate area. The aquifer is also heavily used for crop irrigation.

The Spokane Valley Rathdrum Prairie Aquifer exists within the highly permeable silt, sand, gravel, and boulder Pleistocene flood deposits. On average, the groundwater table is 135 feet below ground surface (bgs). The aquifer thickness is typically greater than 200 feet near the valley center. Irrigation and drinking water wells in the area are completed at depths greater than 100 feet bgs but generally less than 200 feet bgs.

Aquifer recharge is primarily from direct precipitation, streams, lakes, and irrigation. The aquifer gradient in many areas is very flat. Groundwater generally moves at a fast rate and flows regionally south-southwest toward the Spokane River (located about 5 miles from the site).

There are no surface water bodies on or in the near vicinity of the Arrcom site.

C. Nature and Extent of Contamination

During the three phases of the removal action conducted between 1983 and 1990 soils were excavated down to depths, ranging from 1 to 20 feet bgs at different locations on the site. Soil samples were collected after two of the removals to verify the concentration of contaminants remaining in the soils. Contaminated soils and waste oils were shipped to an offsite hazardous waste landfill and incinerator.

A summary of the removal activities and environmental sampling that has been performed is provided below.

• Summary of Sampling/Removal Activities: 1983

Soil and tank contents at the ARRCOM site were sampled in June and August 1983. The results of the analyses showed the presence of a variety of organic contaminants at significant concentrations in on-site soils and tanks.

In August 1983 EPA authorized an emergency removal action because the site posed an immediate threat to human health and the environment. Additional on-site tank and soil sampling was conducted through September 1983. Benzene was detected in the soils and the following contaminants (with the highest detected value in parentheses) were found in the on-site tanks: chloroform (1 ppm), benzene (100 ppm), toluene (11,000 ppm), total xylenes (103,000 ppm), acetone (460 ppm), methylene chloride (130 ppm), tetrachloroethylene (330 ppm), ethyl benzene (44,000 ppm), and PCBs (1,250 ppm).

Contaminated soils were excavated from seven areas which are shown in Figure 3. The two deep excavations were filled with on-site soils and the other excavated areas were leveled. Unpumpable sludges were left in the remaining tanks and trucks on-site.

Summary of Sampling/Removal Activities: 1987

Between the 1983 removal action and 1987, illegal oil storage activities occurred at the Arrcom site. A site assessment conducted in March and April 1987 showed that two of the tanks pumped in 1983 (T-21 and T-22) had apparently been refilled. Additionally, a tar-like material had spilled from a 55-gallon drum on the north side of the boiler room and large areas of on-site soil contained visible oil contamination. An estimated 9,000 gallons of oil and other liquids and/or sludge-like materials were contained in tanks on the site in 1987.

Composite samples of oil and sludge were taken from 19 tanks and 3 trucks in 1987. Sampling results indicated elevated levels of organic and inorganic compounds.

In addition, sample analysis of on-site soils indicated the presence of high levels of organic and inorganic compounds associated with waste oils and solvents.

In April 1987, EPA authorized the second phase of the removal action at the Arrcom site with the goal of excavating contaminated soil and removing all waste oil and on-site structures. Generally, soils were removed if they were visibly contaminated or if concentrations measured by a mobile lab exceeded excavation screening criteria. The exception was in an area around underground storage tank T-14. This area was excavated to a depth of 20 feet, however soil removal ended prior to the complete removal of visible contaminated soil.

Soil removal activities were completed in July 1987. The areas excavated during the 1987 soil removal action are shown in Figure 5.

After the 1987 removal of oil, tanks, and soils, post removal soil sampling was conducted. Results of this sampling effort are shown in Tables 1 and 2 and the sample locations are shown in Figure 4. After the 1987 post-removal sampling was completed, the excavations were regraded and only the deep excavations were backfilled with off-site material.

• Summary of Sampling/Removal Activities: 1990

The results of the 1987 post-removal samples indicated that there were a few remaining areas on the site with elevated levels of PCBs, lead, and PCP. In 1990, EPA undertook a removal action focused on further excavating these areas. Pre-removal soil sampling was conducted. Lead concentrations were as high as 13,500 ppm, and PCBs were found at 5.7 ppm. No PCP was detected above the detection limit of 7 ppm. Other potential organic and inorganic compounds were thought to be co-located with lead and PCBs, therefore, PCBs and lead were used as indicator chemicals to determine the extent of soil excavation. The cleanup levels for lead and PCBs were 500 ppm and 1 ppm, respectively. The areas excavated during the 1990 removal are shown in Figure 6.

Because the removal was targeted at reducing the concentrations of lead, PCBs, and PCP, post-removal soil sampling for these compounds only was conducted before backfilling the 1990 excavations. The sample locations are shown in Figure 4. The results of this sampling effort are presented in Table 3. The excavated areas were then filled with off-site fill and gravel.

• Summary of Sampling Activities: 1991

A limited number of additional soil samples were collected in 1991 to support the risk assessment. Surface and subsurface soil samples were collected in the south area of the site which had not been investigated during the removal actions. Subsurface samples were collected below former waste oil pit locations to assess whether volatile organic compounds which are more mobile than Lead and PCBs, could have migrated to greater depths below the bottom of the waste oil excavations and potentially impact groundwater. In addition, a boring was drilled into the former T-14 pit location to identify the nature of the contamination remaining in the soils.

Surface and subsurface soil samples were analyzed for EPA's Target Compound List (TCL) organics, EPA's Target Analyte List (TAL) for inorganics, cyanide, and total petroleum hydrocarbons (TPHs). The sample locations are shown in Figures 7, 8 and 9. The concentrations of detected TAL organic and TCL inorganic analytes are shown in Tables 4 and 5, respectively. Table 6 shows the results of the TPH analysis.

The results suggest that no significant migration of chemicals has occurred below the formerly-excavated pits. Also, no additional site contamination was found in the south area of the site or in the surface soil fill. The samples obtained from soils below the former tank T-14 confirmed the existence of oily material and provided estimates of the concentrations of contaminants present in this material.

• Summary of Contamination Remaining Onsite

Data from the 1987 post-removal sampling, 1990 post-removal sampling (PCB, lead and PCP only) and 1991 sampling provide information on contaminant concentrations remaining onsite after the 1990 removal. The data suggest that concentrations of contaminants in soils were significantly reduced and that low levels of organic and inorganic contaminants remain in the soils below excavated areas at depths ranging from 1 foot to 25 feet bgs. The excavation depths and locations are shown in Figure 10.

The samples obtained from soils below the former tank T-14 indicate the existence of oily material and provided estimates of the concentrations of contaminants present in this material. These contaminants including trichloroethylene (TCE) and xylene are located 20 feet bgs under clean fill material.

The 1991 investigation suggests organic chemicals in waste oils had not significantly migrated vertically below the excavation pits and that contaminants were bound-up in the waste oil matrix rather than being leached prior to excavation.

• Groundwater

From 1982 to 1992, five groundwater sampling events occurred at or in the vicinity of the Arrcom site. The results of these sampling events are discussed below.

Groundwater samples were first collected from residential wells in the immediate vicinity of the ARRCOM site in August 1982. In July 1987, three on-site groundwater monitoring wells were installed at the Arrcom site. These three monitoring wells and five local residential wells were sampled in December 1987. The wells were sampled for volatiles, semi-volatiles, pesticides, herbicides, PCBs and metals.

The results of the 1983 & 1987 groundwater sampling effort, indicated that no site related organic or inorganic compounds were detected in any of the samples.

In March 1989, May 1990, and February 1992 the three on-site monitoring wells were sampled again for the same parameters, and no site related organic or inorganic compounds were detected.

VI. SUMMARY OF SITE RISKS

A risk assessment was prepared to evaluate potential risks to human health and the environment resulting from contaminants remaining on-site after the final removal action. The remaining contaminants in soil that could potentially pose a risk were at depth and there was not a risk associated with the direct contact exposure pathway. Therefore, the quantitative risk assessment evaluated the risk associated with potential exposure to contaminants in groundwater only. The results of the risk assessment indicate that conditions at the site will not have an adverse effect on human health or the environment.

A conservative approach was used to evaluate quantitative health risks for chemicals of concern in soils as recommended in EPA's Risk Assessment Guidance for Superfund. Vol. I: Human Health Evaluation Manual (EPA 1989a), EPA Region 10 "Draft Supplemental Risk Assessment Guidance for Superfund" (EPA Region 10 1991), and other guidance documents. Reasonable conservative estimates and assumptions were made at every step in the analysis to enhance confidence in the conclusions of the risk assessment. The Risk Assessment followed a four step process which is summarized below.

A. Human Health Risks

1. Identification of Chemicals of Concern

The sampling results from soils that remain on-site after the 1987 and 1990 removal action and the additional data collected in

1991 were used to select chemicals of concern.

As a means of determining which chemicals and portions of the site pose a potential human health hazard, contaminant concentrations were compared to risk-based screening levels; allowable daily intake levels; naturally occurring background concentrations and the frequency of detection of the contaminants at the site.

Based on this screening the contaminants of concern that could pose significant risks are 1,1,2,2-tetrachloroethane a carcinogen, and xylenes which are noncarcinogens. These contaminants are located 20 feet bgs underneath clean fill at the former Tank T-14 location.

2. Exposure Assessment

Because the site is abandoned the most likely current scenario for exposure to the chemicals of concern is from a trespasser. The likely future exposure scenario would be to an on-site resident. The only contaminant source is assumed to be the chemicals of concern located in the zone of soil contamination under former Tank T-14, 20 feet bgs. Direct contact with subsurface soils at that depth by trespassers or future residents is highly unlikely. Inhalation of airborne soil particles or volatile organic compounds from contaminants at that depth is also highly unlikely.

The only reasonable potential exposure to contaminants is if the contaminants remaining in the soils migrate downward and come in contact with the groundwater. Note that the potential for verticle migration appears to be low based on the 1991 soil sampling event, which indicated that contaminants have not significantly migrated vertically. However, to be complete and conservative this pathway was evaluated further.

Since no groundwater contamination has been detected to date only a future exposure scenario was evaluated. A hypothetical future on-site residential scenario was chosen rather than a future worker or nearby resident because it is the most conservative in terms of the estimated daily intake. A conceptual site model is presented in Figure 2-11. The exposure pathways evaluated were ingestion and inhalation of contaminated groundwater.

2.1 Assessment of Potential for Future Groundwater Contamination and Associated Human Health Risks

A conservative groundwater infiltration model (MMSOILS Model) was performed to calculate the concentration of chemicals that could potentially reach groundwater with precipitation as the driving mechanism. The results of the modeling on the chemicals of concern indicated that only 1,1,2,2-tetrachloroethane could

potentially reach the groundwater at a concentration of concern. The concentration of xylene that could potentially reach the groundwater was below the risk based screening level and therefore not retained for further risk evaluation.

The concentration of 1,1,2,2-tetrachloroethane that could potentially reach the groundwater was combined with assumptions about the behavior of the populations at risk, in order to estimate the rate at which contaminants could be taken in by the exposed populations, via ingestion of drinking water or inhalation of vapors during household water use.

The scenario for future on-site residents was developed using reasonable maximum groundwater intake assumptions and an upperbound estimate of the concentration of the contaminant in groundwater.

Human exposure assumptions are shown in Table 7. Conservative assumptions associated with estimation of groundwater concentrations included that the well would draw water only from the contamination zone and that the concentration would be the average of the highest concentration potentially seen over a 30 year period.

3. Toxicity Assessment

Using the conservative assumptions for both the potentially exposed population and the potential groundwater concentrations, estimates of the chronic daily intakes (CDI) for 1,1,2,2-tetrachloroethane were calculated for a hypothetical exposed individual.

The CDIs for potential future site residents exposed to 1,1,2,2-tetrachloroethane in groundwater were calculated for the inhalation and ingestion exposure pathways. These CDIs are shown in Table 8. The CDI was then combined with toxicological information, as described below to determine whether the estimated intake level could pose a threat to human health.

The contaminant of concern at the Arrcom site, 1,1,2,2 - tetrachloroethane is classified as a Group C carcinogen or possible human carcinogen. The weight of evidence of carcinogenicity in animals is limited and inadequate or no data is available in humans. The cancer slope factor is presented in Table 9 for the exposure pathways of concern.

Excess lifetime cancer risks were determined for each exposure pathway by multiplying the exposure level or CDI by the chemical-specific cancer slope factor. Chemical-specific cancer potency (slope) factors have been developed by EPA from human epidemiological or animal studies. This information was obtained from EPA's Integrated Risk Information System (IRIS) and the

Health Effects Assessment Summary Tables (HEAST).

4. Risk Characterization

The cancer risks from ingestion and inhalation of the maximum potential concentrations of 1,1,2,2-tetrachloroethane predicted in groundwater at the Arrcom site and the total risk from adding risks associated with exposure to both drinking water and vapors are shown in Table 10. The risk estimates are expressed in scientific notation (i.e. 1×10^{-6} for one in one million; indicating that an individual is not likely to have greater than a one in one million chance of developing cancer over his/her lifetime as a result of site-related exposure). The risk at the Arrcom site falls within the EPA acceptable cancer risk range of 10^{-4} to 10^{-6} (NCP, USEPA, 1985e).

Risk estimates calculated from the potency factors reflect a conservative "upper bound" estimate of the risk posed by potentially carcinogenic compounds. That is, the true risk is very unlikely to be greater than the risk predicted and could be substantially lower.

Uncertainties in the Risk Assessment for Human Health

The accuracy of the risk characterization depends in a large part on the accuracy and representativeness of the sampling, exposure and toxicological data. Most assumptions are intentionally conservative, so the risk assessment will be more likely to overestimate risks than to underestimate risk. The procedures and inputs used to assess potential human health risks in this evaluation are subject to a number of uncertainties.

The uncertainties are discussed in greater detail in the risk assessment report.

B. Ecological Risks

The potential adverse impacts of soil contaminants on local plants and animals were qualitatively assessed. Potential ecological receptors could be exposed to soil contaminants through direct uptake, direct contact, or ingestion.

Potential receptors and exposure scenarios were evaluated and it was determined that because areas with contaminants remaining onsite are at significant depth in the subsurface, the Arrcom site does not pose a risk to ecological receptors or habitats.

C. Human Health and Ecological Risk Summary

The results of the risk assessment show that under a current use scenario and future hypothetical on-site residential scenario,

the site does not pose a risk to human health and the environment.

Under the current use scenario the risk to a trespasser through soil ingestion and inhalation is highly unlikely. The risk evaluation for the hypothetical future residential scenario showed that risks to human health through ingestion or inhalation of potential contaminants in groundwater were within EPA's acceptable risk range of 10^{-4} to 10^{-6} for carcinogens. Noncarcinogens are not expected to reach the groundwater in concentrations that result in adverse noncarcinogenic health effects.

Ecological receptors and habitats are not expected to be adversely impacted because the source of contamination in surface soils has been removed from the site.

VII. THE SELECTED REMEDY

The no further action decision is based on the post-removal soil and groundwater sampling, the supplemental remedial soil and groundwater sampling and the Risk Assessment. Based on the information currently available, the removal actions at the site have reduced concentrations of contaminants in soils to levels that do not pose a risk to human health and the environment. Therefore, EPA has determined that no further remedial action is necessary at this site. The site now qualifies for inclusion in the "sites awaiting deletion" subcategory of the construction completion category of the National Priorities List.

VIII. DOCUMENTATION OF SIGNIFICANT CHANGES

The proposed plan for the Arrcom site was released for public comment on May 22, 1992. The proposed plan identified the no further action decision at the Arrcom site. Public comments were evaluated at the end of the 30-day comment period and are addressed in the responsiveness summary. It was determined that no significant changes to the proposed plan were necessary.

APPENDIX A

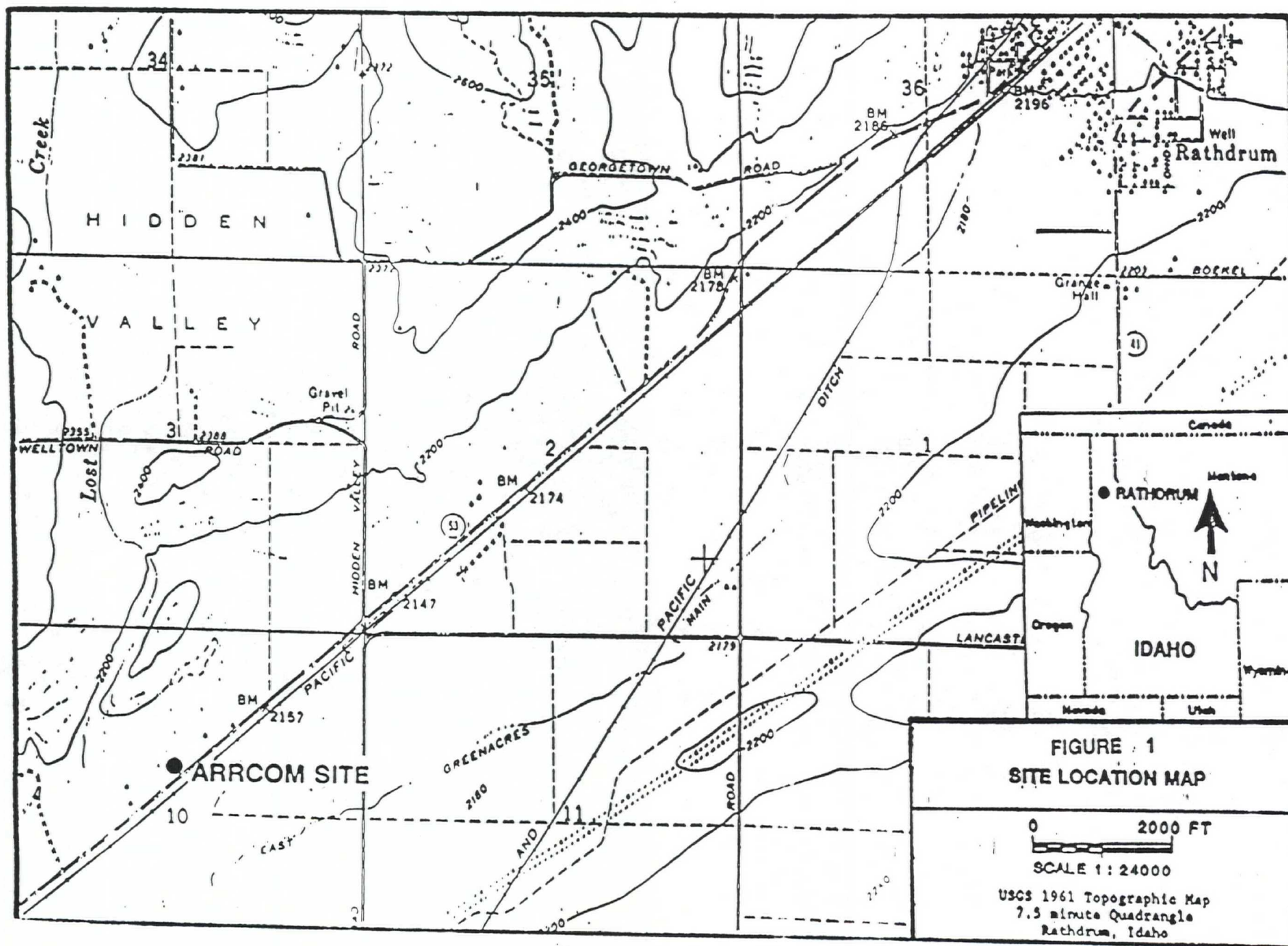
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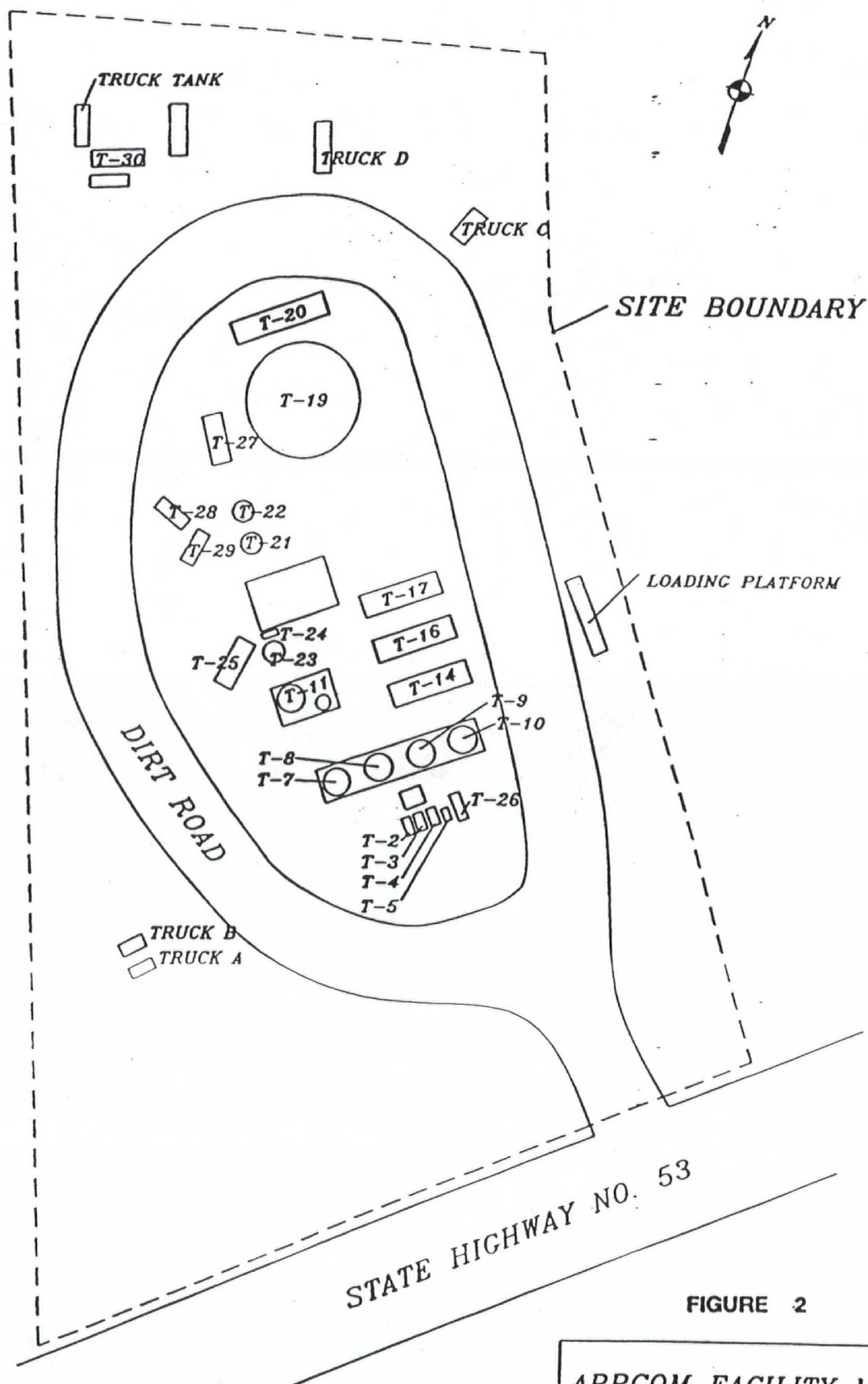


FIGURE 2

APPROXIMATE SCALE IN FEET



T = TANK

ARRCOM FACILITY MAP



ICF Technology Inc.

DATE: 6/10/91

No: ARRCBASE

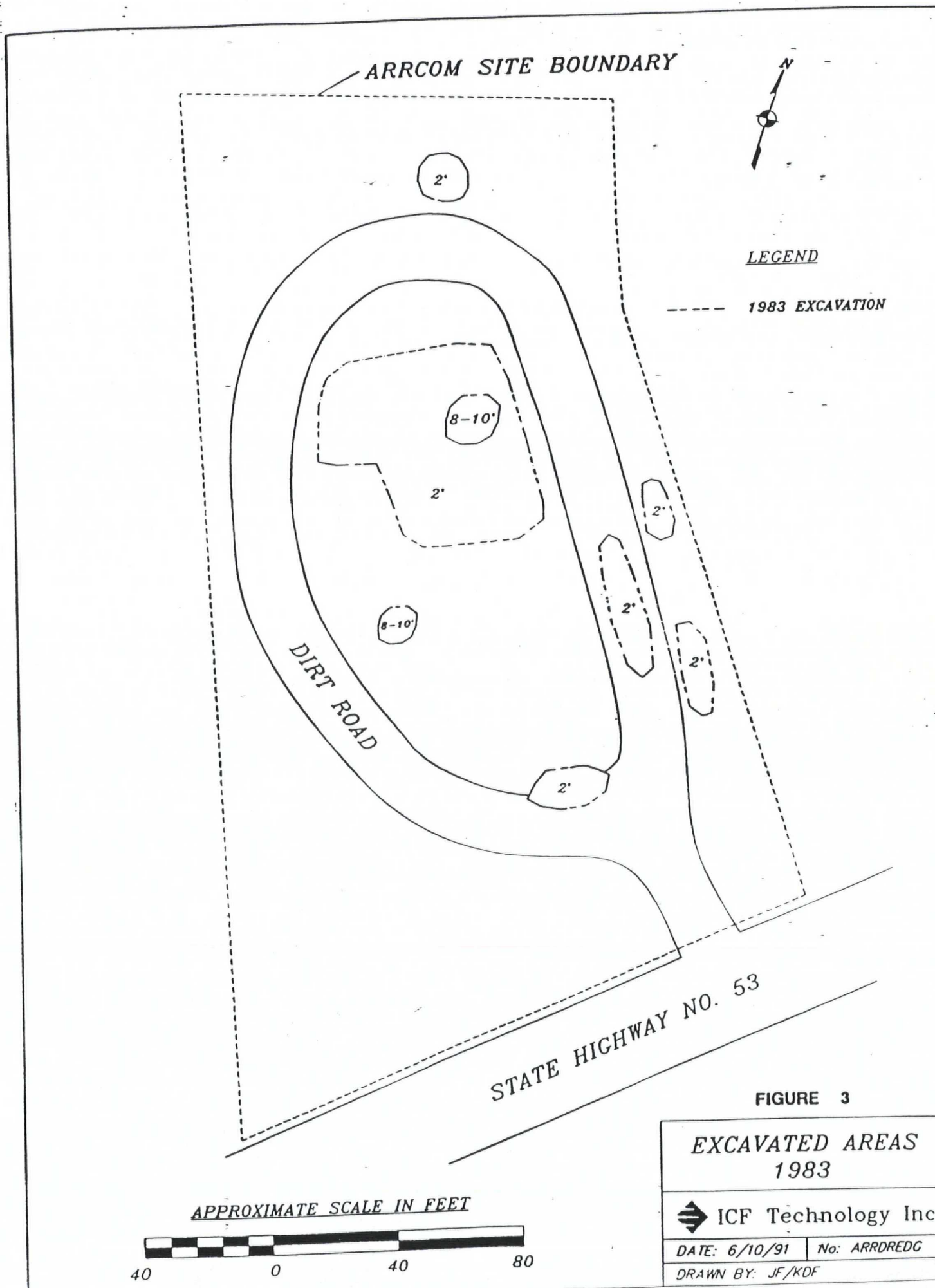
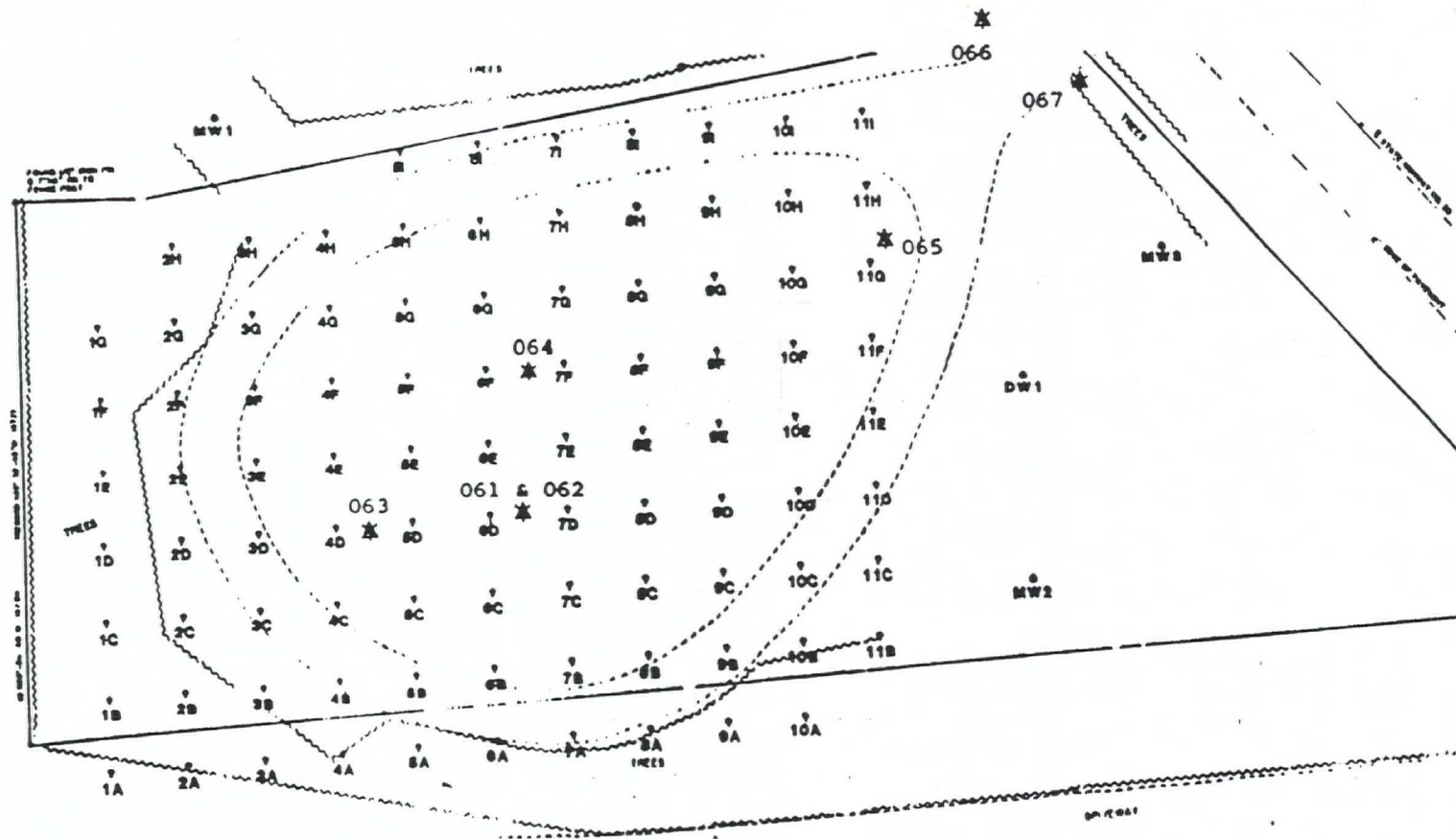


FIGURE 4

1987 & 1990 Removal Sample Locations



LEGEND

- Dirt Road
- ~~~~~ Tree Line
- ▼ Post-Removal Soil Sample
- Monitoring Well (MW)
- Drinking Water Well (DW)
- * Baseline Soil Sample



Source: E&E 1987a.

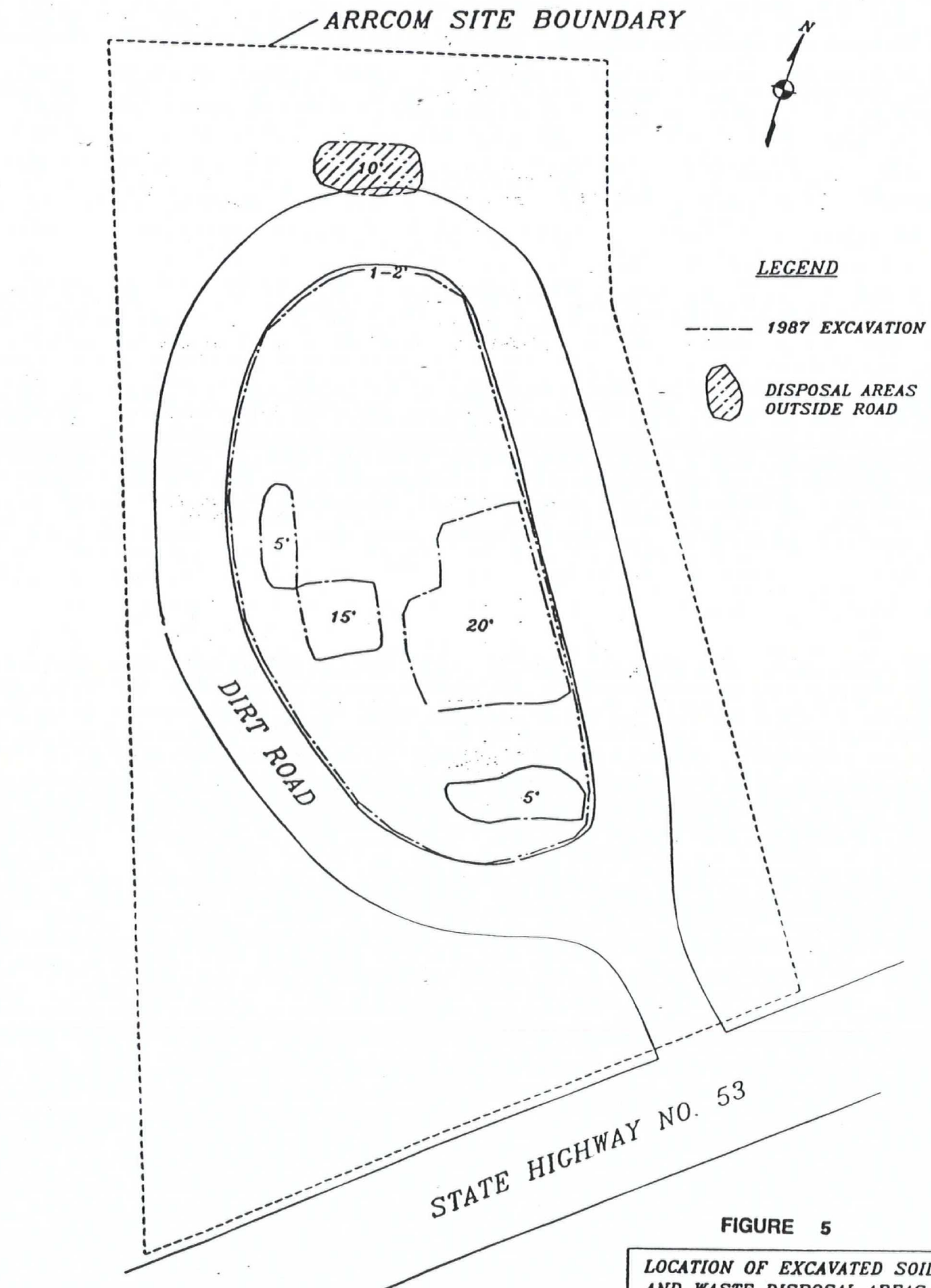


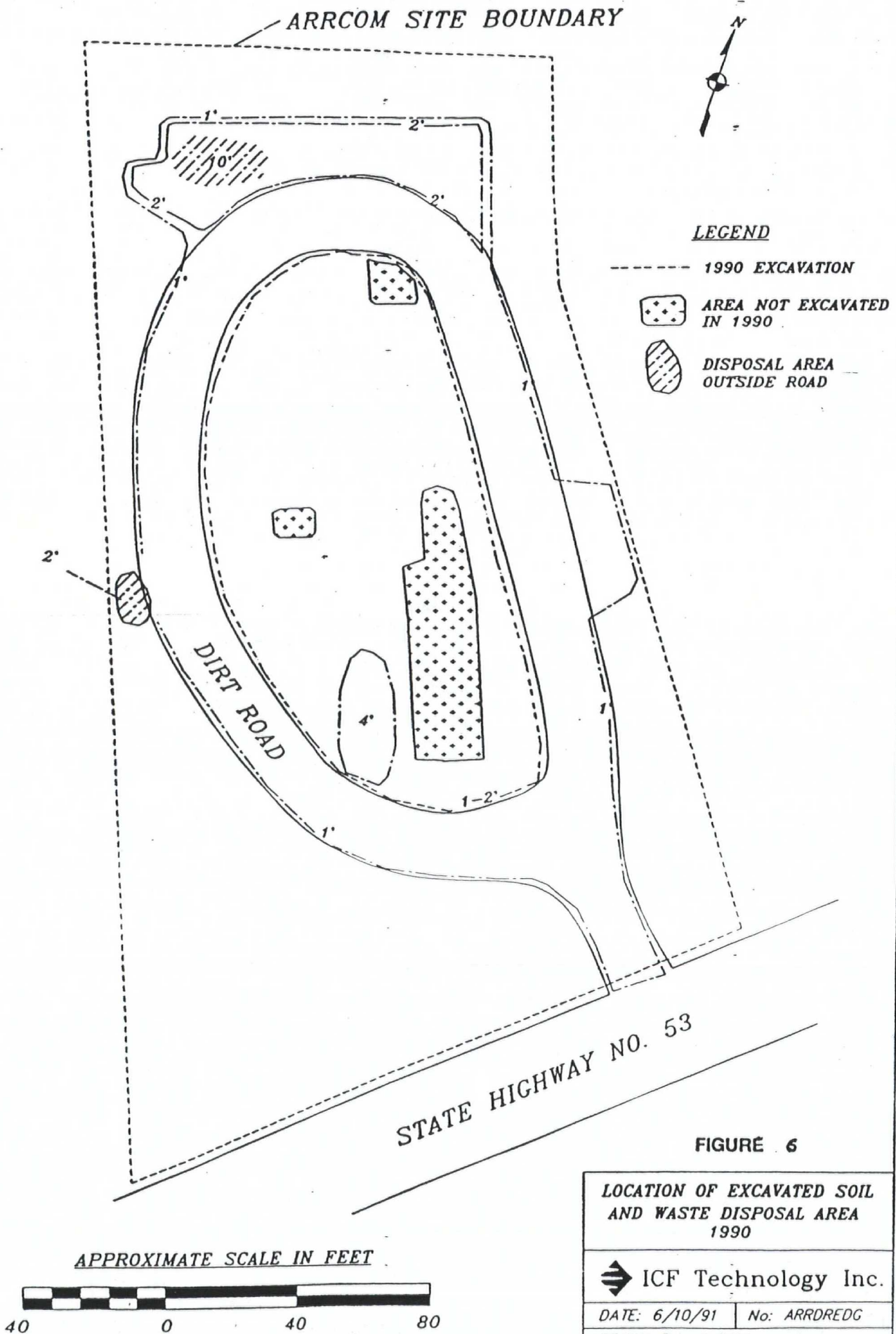
FIGURE 5

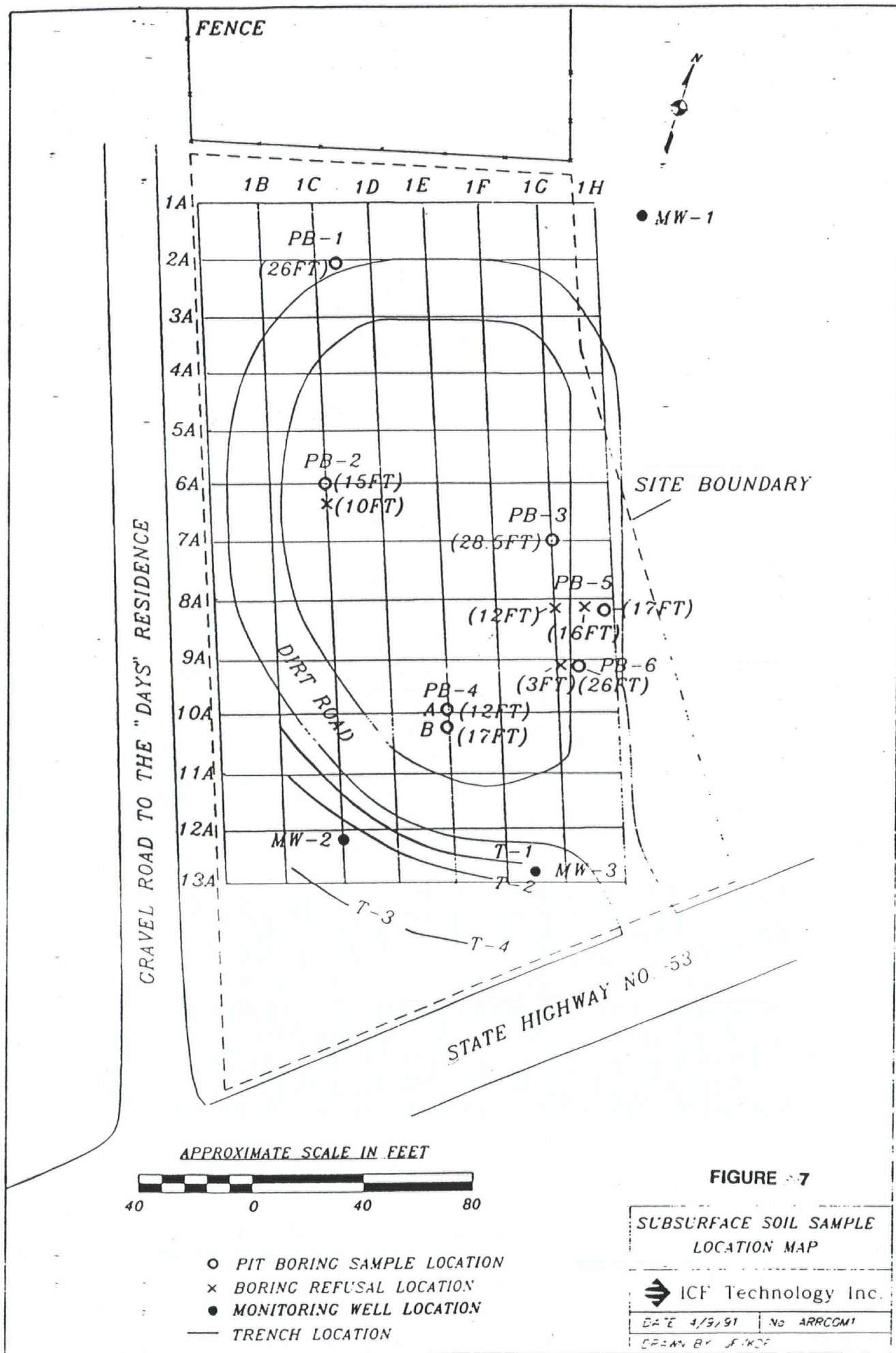
LOCATION OF EXCAVATED SOIL
AND WASTE DISPOSAL AREAS
1987

ICF Technology Inc.

DATE: 6/10/91 No: ARRDREDG

DRAWN BY: IF/KDE





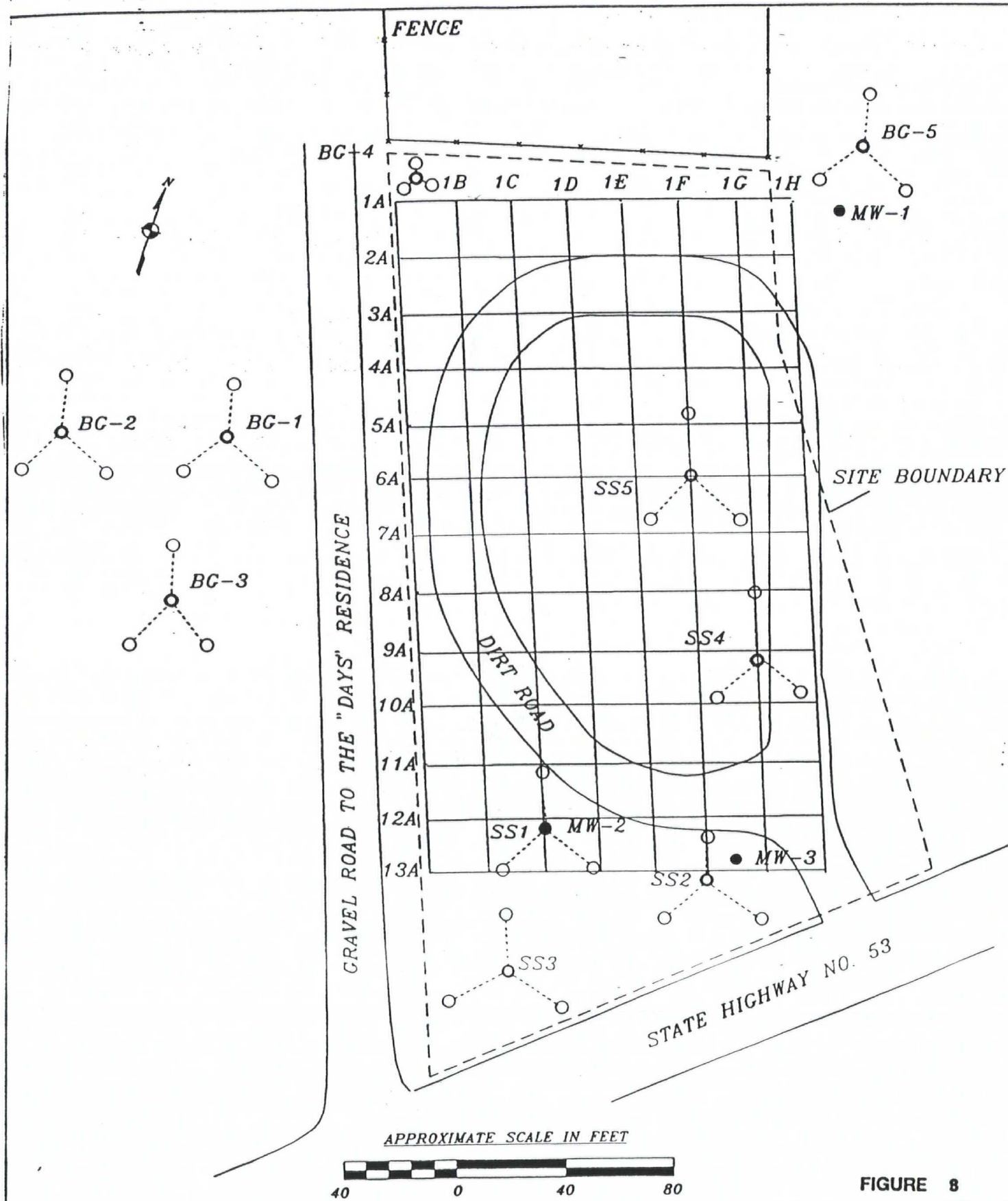


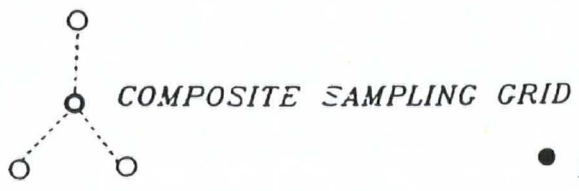
FIGURE 8

**SURFACE SOIL SAMPL
LOCATION MAP**

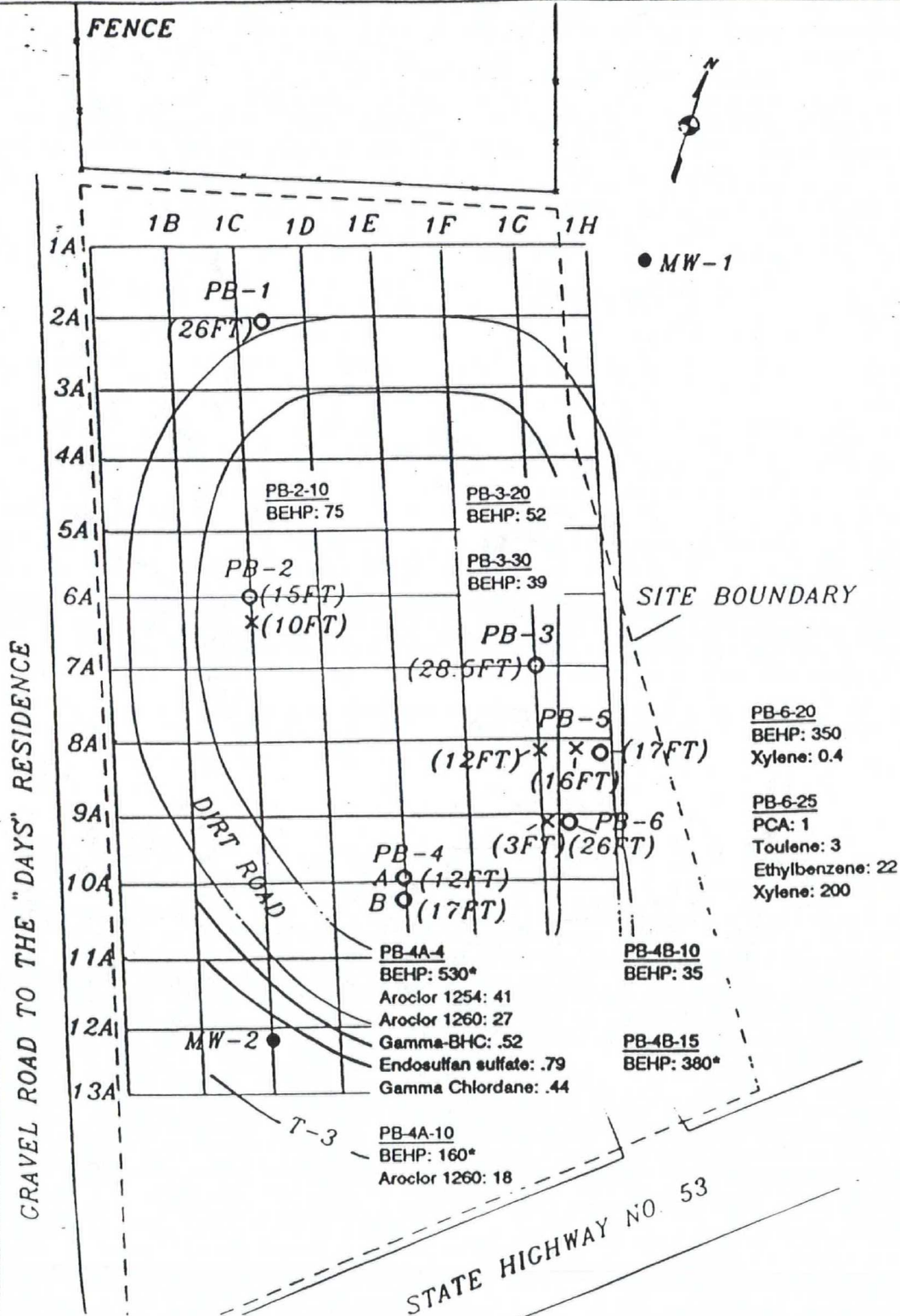
ICF Technology Inc.

DATE: 4/9/91 No: ARRCOM1

DRAWN BY: JF/KDF



● **MONITORING WELL LOCATION**



* Asterisk indicates concentrations of bis(2-ethylhexyl)phthalate (BEHP) greater than ten times blank concentration.

FIGURE 9

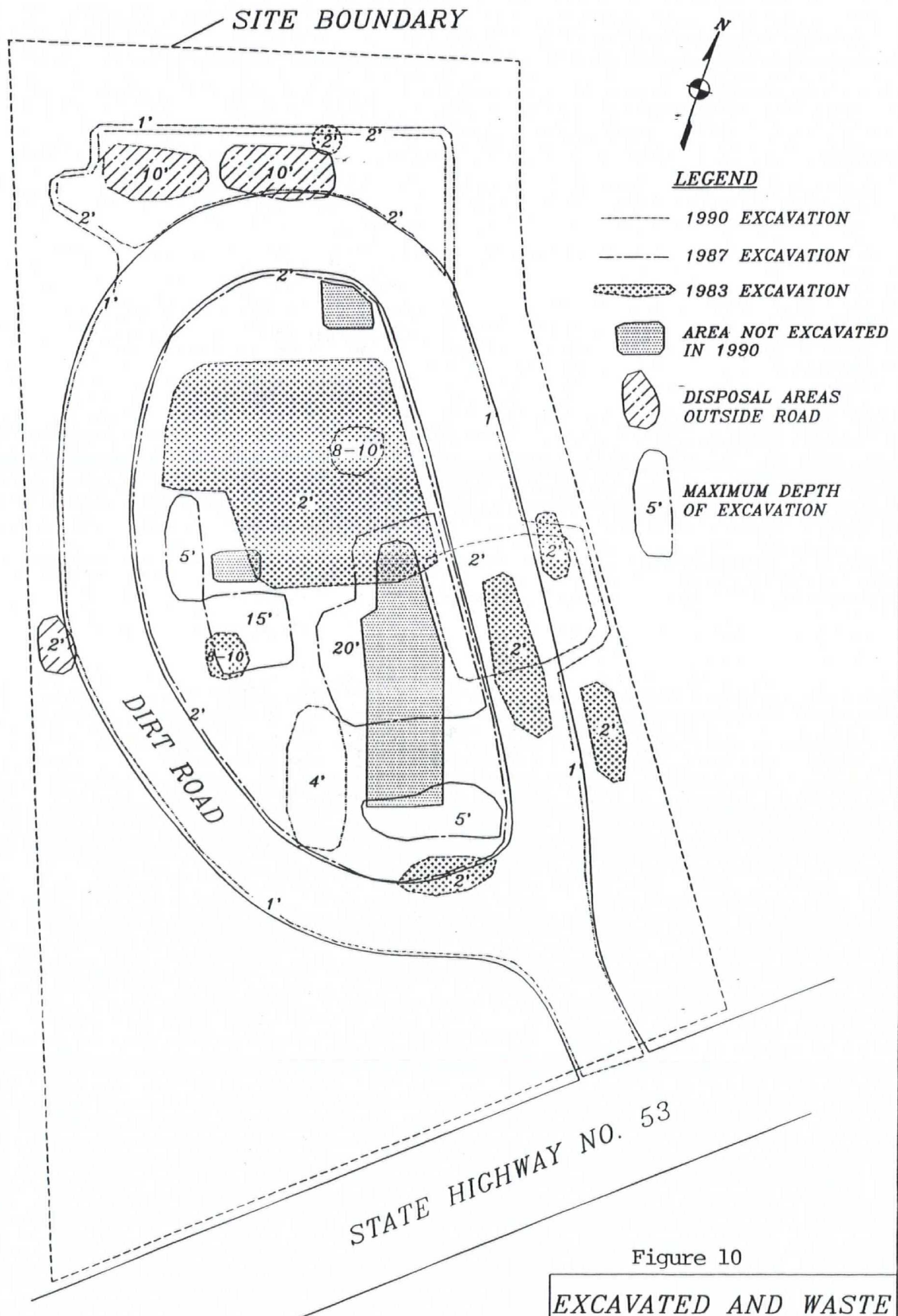
**RESULTS OF ORGANICS ANALYSES
OF 1991 PIT BORING SAMPLES (ug/kg)**

- PIT BORING SAMPLE LOCATION
- x BORING REFUSAL LOCATION
- MONITORING WELL LOCATION
- TRENCH LOCATION

ICF Technology Inc.

DATE 4/9/91 NO ARRCOM1

DRAWN BY JF/KCF



ARRCOM SITE CONCEPTUAL SITE MODEL

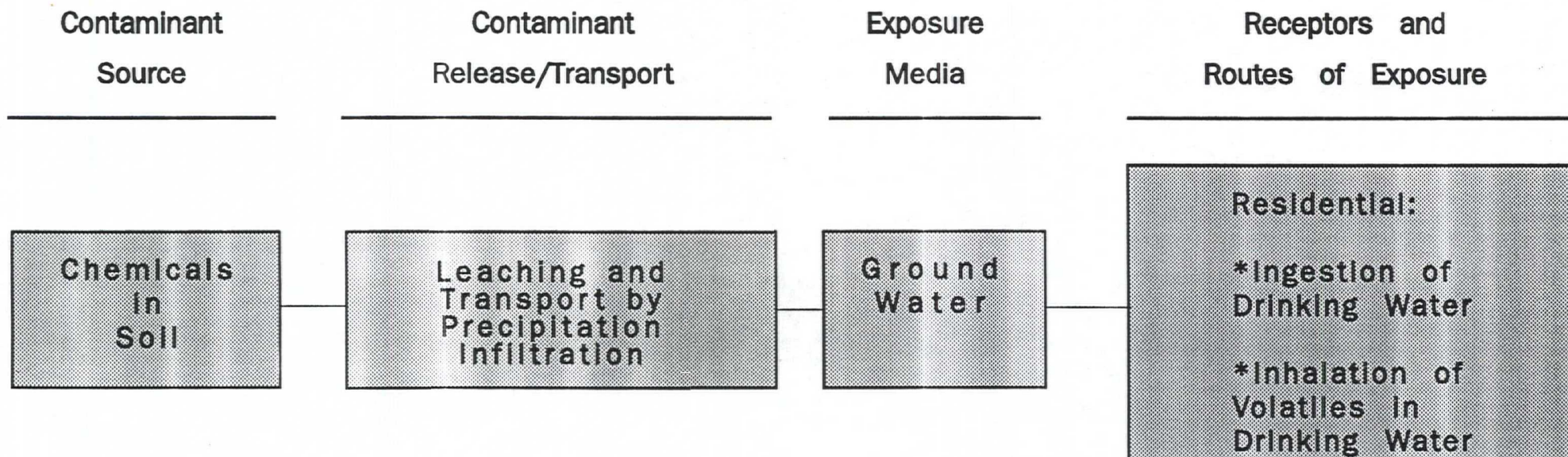


FIGURE 11

TABLE 1

**SUMMARY OF 1987 POST-REMOVAL SOIL SAMPLING RESULTS
FOR ORGANIC CHEMICALS DETECTED AT THE ARRCOM SITE (ug/kg)^a**

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTIONS		RANGE FOUND IN BACKGROUND SAMPLES (ug/kg)
		LOW (ug/kg)	HIGH (ug/kg)	
VOLATILES:				
Chloromethane	11/108	10J	1,000	79-3623J 63-1831 1J-4J 9-4223
Chloroethane	4/108	10J	10J	
Methylene chloride	52/108	1J	225J	
Acetone	61/108	2	750J	
Carbon disulfide	18/108	1J	500J	
2-Butanone	30/108	8J	1,100J	
1,1,1-Trichloroethane	7/108	1J	18	
Vinyl acetate	9/108	10J	50J	
Bromodichloromethane	5/108	5J	25J	
Trichloroethene	12/108	2J	21	
Benzene	16/108	1J	7J	
2-Chloroethylvinylether	9/108	11R	15R	
2-Hexanone	6/108	10J	50J	
4-Methyl-2-pentanone	6/108	10J	50J	
Tetrachloroethene	22/108	1M	64	
Toluene	63/108	2	2,500	
Chlorobenzene	17/108	2J	3,800	10-986
Ethylbenzene	4/108	4J	1,600	8-16
Xylenes	10/108	2J	23,000J	
SEMIVOLATILES:				
Phenol	1/108		2,783	
Isophorone	1/108		12,000	
Benzoic acid	5/108	420J	4200J	
2-Methylnaphthalene	4/108	87J	5,700	
Diethylphthalate	1/108	106J		
n-Nitrosodiphenylamine	1/108		120J	
Pentachlorophenol	7/108	3,500J	5,100J	
Phenanthrene	1/108		1,600J	
Di-n-butylphthalate	4/108	100J	1,077	
Fluroanthene	1/108		99J	
Pyrene	2/108	83J	93J	
Butylbenzypthalate	1/108		1,900J	
3,3-Dichlorobenzidine	9/108	1,460J	2,100J	
Benzo(a)anthracene	1/108		49J	
Bis-2-ethylhexylphthalate	27/108	96J	12,000	

TABLE 1 (Continued)

**SUMMARY OF 1987 POST-REMOVAL SOIL SAMPLING RESULTS
FOR ORGANIC CHEMICALS DETECTED AT THE ARRCOM SITE (ug/kg)^a**

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTIONS		RANGE FOUND IN BACKGROUND SAMPLES (ug/kg)
		LOW (ug/kg)	HIGH (ug/kg)	
Chrysene	1/108		90J	
Benzo(b)fluoranthene	1/108		63J	
Benzo(k)fluoranthene	1/108		56J	
PESTICIDES AND PCBs				
Alpha BHC	2/108	6J	8J	2J
Beta BHC	3/108	17J	31J	
Heptachlor	1/108		2	
Aldrin	1/108		120	
Endosulfan I	2/108	4	23	
Dieldrin	1/108		20	
Endosulfan sulfate	2/108	2	91	
Arochlor 1016	14/108	96	5,200	
Arochlor 1242	5/108	197	1,700	
Arochlor 1248	6/108	120	8,200J	
Arochlor 1260	46/108	16J	7,100J	1J

^a Data qualifier "J" indicates the associated value is estimated; "R" indicates the associated value is rejected; "M" indicates mass spectral critical for positive identification were not met. In the opinion of the laboratory personnel, the identification is correct.

TABLE 2

**SUMMARY OF 1987 POST-REMOVAL SOIL SAMPLING RESULTS
FOR INORGANIC CHEMICALS DETECTED AT THE ARRCOM SITE (mg/kg)^a**

CHEMICAL	FREQUENCY OF DETECTION	RANGE OF DETECTIONS		RANGE FOUND IN BACKGROUND SAMPLES (mg/kg)
		LOW (mg/kg)	HIGH (mg/kg)	
INORGANICS:				
Aluminum	108/108	4,990	36,100	15,600-29,000
Antimony	108/108	13J	18J	13-16
Arsenic	104/108	7	48J	16-42
Barium	108/108	34	990	118-320
Beryllium	60/108	0.58	1.7	0.68-1.3
Cadmium	4/108	2.7	4.2	2.8
Calcium	108/108	1,790	33,900	2,680-4,170
Chromium	108/108	4.3	60	6.1-14
Cobalt	54/108	4.7	7.8	5.5-7.6
Copper	108/108	12	100	20-25
Iron	108/108	9,730	58,200	15,200-22,600
Lead	108/108	11	3,880	12-46
Magnesium	108/108	1,950	10,900	1,950-6,990
Manganese	108/108	211	1,010	512J-966J
Mercury	47/108	0.1J	2.4	
Nickel	108/108	6.7	28	10-17
Potassium	108/108	816	3,670	1,460-2,770
Selenium	58/108	2.6J	3.7J	
Silver	40/108	2.1J	2.9J	
Sodium	5/108	582	706	596
Tin	11/108	12	526	
Vanadium	108/108	8.1	59	22-36
Zinc	108/108	32	747	61J-181J

^a Data qualifier "J" indicates the associated value is estimated.

TABLE 3

SUMMARY OF 1990 POST-REMOVAL SOIL SAMPLING RESULTS (mg/kg)

Sample Number	Lead	PCB	PCP	Grid Location/ Comments
T0040620	64	1.0 UJ	.001 U	12G
T0040622	20	1.0 U	.0023 U	7H
T0040623	330	4.5	.020 U	8H, since PCB action level was exceeded, sample T0040679 was collected following further excavating.
T0040624	14	1.0 U	.001 U	8I
T0040625	109	1.0 U	.0072 U	7I
T0040627	114	1.0 U	.021 U	3H
T0040628	47	1.0 U	.0087 U	11G
T0040629	90	1.0 UJ	.0072 U	11F
T0040630	10 U	1.0 U	.001 U	2F
T0040631	57	1.0 UJ	.001 U	2D
T0040632	60	1.0 UJ	.001 U	Duplicate of sample T0040631.
T0040633	18	1.0 UJ	.001 U	2C
T0040634	20	1.0 UJ	.001 U	Duplicate of sample T0040633.
T0040635	240	1.0 UJ	.002 U	3B
T0040636	68	1.0 UJ	.001 U	Duplicate of sample T0040635.
T0040637	247	1.0 U	.029 U	7F
T0040638	144	.8 J	.010 U	7E
T0040639	62	1.0 UJ	.002 U	7D
T0040640	28	1.0 U	.001 U	5G
T0040641	87	1.3	.001 U	6F, since PCB action level was exceeded, sample T0040680 was collected following further excavation.
T0040642	173	1.0 U	.001 U	6E
T0040643	268	1.0 UJ	.011 U	4E
T0040644	44	1.0 UJ	.001 U	4D
T0040648	10 U	1.0 U	.001 U	11H
T0040649	10 U	1.0 U	.001 U	Duplicate of sample T0040648.
T0040650	81	1.0 U	.001 U	10H
T0040651	10 U	1.0 U	.001 U	2H
T0040652	10 U	1.0 U	.001 U	2G
T0040653	10 U	1.0 U	.0017	2E
T0040654	520	1.0 U	.0074	5E, since lead action level was exceeded, sample T0040689 collected followi further excavation.
T0040655	167	1.0 U	.012	5F
T0040658	10 U	1.0 U	.001 U	9H
T0040659	35	1.0 U	.001 U	6H
T0040660	123	1.0 U	.001 U	5H
T0040661	95	14	.001 U	4H, since PCB action level was exceeded, sample T0040683 was collected following further excavation.
T0040662	69	16	.0081	Duplicate of sample T0040661
T0040663	18	1.0 U	.001 U	3G
T0040664	68	1.0 U	.001 U	3F
T0040665	327	1.0 U	.015	3E
T0040666	52	1.0 U	.001 U	3D
T0040667	23	1.0 U	.001 U	3C
T0040668	22	1.0 U	.001 U	5B
T0040669	44	1.0 U	.0013	4B/4C, grab sample collected between the two grid locations.
T0040670	10 U	1.0 U	.001 U	6A/6B, grab sample collected between the two grid locations.
T0040671	54	1.0 U	.001 U	7A/7B, grab sample collected between the two grid locations.
T0040672	16	1.0 U	.001 U	8A/8B, grab sample collected between the two grid locations.
T0040673	14	1.0 UJ	.001 U	9B
T0040674	10 U	1.0 U	.001 U	10C
T0040675	10 U	1.0 U	.001 U	11D
T0040676	10 U	1.0 U	.001 U	12F
T0040677	24	1.0 UJ	.001 U	12H
T0040678	10 U	1.0 UJ	.001 U	12I

TABLE 3 (Continued)

SUMMARY OF 1990 POST-REMOVAL SOIL SAMPLING RESULTS (mg/kg)

Sample Number	Lead	PCB	PCP	Grid Location/ Comments
T0040679	10 U	1.0 U	.0029	8H
T0040680	10 U	1.0 UJ	.001 U	6F
T0040681	13	1.0 U	.001 U	4F
T0040682	10 U	1.0 U	.001 U	Duplicate of sample T0040678
T0040683	NA	1.0 U	.001 U	4H, original sample at this grid location met action level for lead, but not for PCB.
T0040684	315	1.0 U	*	5C
T0040685	51	1.0 U	*	5D
T0040686	10 U	1.0 U	*	11E
T0040687	10 U	1.0 U	*	Duplicate of sample T0040686
T0040688	10 U	1.0 U	*	4C
T0040689	10 U	NA	*	5E, original sample at this grid location met action level for PCB, but not for lead.
T0040690	10	1.0 U	*	6C
T0040691	12	1.0 U	*	13J
T0040697	166	1.0 U	*	10D
T0040698	190	1.0 U	*	10E
T0040699	15	1.0 U	*	7C
T0050201	235	1.0 U	*	9E
T0050202	14	1.0 U	*	8E
T0050203	26	1.0 U	*	8D
T0050204	36	1.6	*	9D, since PCB action level was exceeded, sample T0050212 collected following further excavation.
T0050205	12	1.0 U	*	Duplicate of sample T0040691.
T0050210	57	1.0 UJ	*	8C
T0050211	10 U	1.0 U	*	9C
T0050212	10 U	1.0 U	*	9D
T0040656	10 U	1.0 UJ	.001 U	Clean fill
T0040657	10 U	1.0 U	.001 U	Clean gravel

* - No PCP sample collected due to EPA/TAT decision that PCP values were at acceptable limits following excavation.

U - The material was analyzed for but was not detected. The associated numerical value is the sample detection limit or the adjusted sample detection limit.

J - The associated numerical value is an estimated quantity because the reported concentrations were less than the contract required detection limits or quality control criteria were not met.

NA - Not analyzed

TABLE 4

SUMMARY OF ORGANIC CHEMICALS DETECTED IN SOIL - 1991^a

Location	Chemical	Detection Limits (DL) For Nondetects (mg/kg)	Frequency of Detection	Range of Detection (mg/kg)
Background Surface Soil	Bis(2-ethylhexyl)Phthalate	0.34-0.36	3/5	0.035-0.1 (a)
	4,4'-DDE	0.0034-0.0037	2/5	0.0005J-0.00075J
	4,4'-DDT	0.0034-0.0037	2/5	0.00019J-0.0034J
	Alpha-BHC	0.0017-0.0019	1/5	0.00083J
On-Site Surface Soil	Bis(2-ethylhexyl)Phthalate	0.33-0.42	3/5	0.044-0.11 (a)
	Di-n-Butylphthalate	0.33-0.42	1/5	0.034J
	PCP	0.8-1.0	1/5	0.039J
	4,4'-DDE	0.0033-0.0042	1/5	0.0004J
	4,4'-DDT	0.0033-0.0042	2/5	0.0022J-0.0051J
	Aroclor 1260	0.033-0.042	1/5	0.075
Trenches	Bis(2-ethylhexyl)Phthalate	0.35-0.42	1/4	0.042J
	1,2-dichlorobenzene	0.35-0.42	1/4	0.038J
	1,2,4-Trichlorobenzene	0.35-0.42	1/4	0.064J
	Methoxychlor	0.001-0.022	1/4	0.00048J
Pit Borings	Bis(2-ethylhexyl)Phthalate	0.350-3.6	9/12	0.035-0.53 (a)
	gamma-BHC (Lindane)	0.0018	1/12	0.00052J
	Endosulfan sulfate	0.0034-0.0036	1/12	0.00079J
	gamma-Chlordane	0.0018	1/12	0.00044J
	Aroclor 1254	0.034-0.036	1/12	0.041
	Aroclor 1260	0.034-0.036	2/12	0.018-0.027J
	1,1,2,2-Tetrachloroethane	0.01	1/12	0.001J
	Toluene	0.01	1/12	0.003J
	Ethylbenzene	0.01	1/12	0.022
	Xylene (total)	0.01	2/12	0.004-0.2

Footnotes: (a) All detected value(s) qualified with J.

TABLE 5

SUMMARY OF INORGANIC CHEMICALS DETECTED IN SOIL - 1991^a

Location	Chemical	Detection Limits (DL) For Nondetects (mg/kg)	Frequency of Detection	Range of Detection (a) (mg/kg)
Background Soil	Aluminum	NA (b)	5/5	26,700-30,300
	Antimony	3	2/5	3.8-4.8
	Arsenic	NA	5/5	4.46-5.04
	Barium	NA	5/5	267-306
	Beryllium	NA	5/5	.979-1.17
	Cadmium	NA	5/5	0.8-1.2
	Calcium	NA	5/5	3,500-4,300
	Chromium	NA	5/5	7.14-9.06
	Cobalt	NA	5/5	7.44-9.26
	Copper	NA	5/5	16.3-18.4
	Iron	NA	5/5	16,400-18,600
	Lead	NA	5/5	12.4-27.2
	Magnesium	NA	5/5	3,100-4,010
	Manganese	NA	5/5	774-961
	Mercury	NA	5/5	0.03-0.047
	Nickel	NA	5/5	9.05-9.64
	Potassium	NA	5/5	1,210-1,850
	Silver	0.3	4/5	0.36-0.48
	Sodium	NA	5/5	40.6-102
	Vanadium	NA	5/5	21-26.2
	Zinc	NA	5/5	75.8-95.9
Surface Soil Area Samples	Aluminum	NA	5/5	8,740-25,700
	Antimony	3	3/5	3.9
	Arsenic	NA	5/5	2.83-19.3
	Barium	NA	5/5	47.4-257
	Beryllium	NA	5/5	0.44-0.829
	Cadmium	NA	5/5	0.29-0.99
	Calcium	NA	5/5	2,650-29,700
	Chromium	NA	5/5	5.48-13
	Cobalt	NA	5/5	5.55-10
	Copper	NA	5/5	12.7-25.1
	Iron	NA	5/5	13,300-18,300
	Lead	NA	5/5	12.6-192
	Magnesium	NA	5/5	1,930-8,720
	Manganese	NA	5/5	309-610
	Mercury	0.015	3/5	0.03-0.297
	Nickel	NA	5/5	6.5-13.3
	Potassium	NA	5/5	1,250-2,280
	Silver	0.3	2/5	0.37-0.41
	Sodium	NA	5/5	172-322
	Vanadium	NA	5/5	9.16-19.8
	Zinc	NA	5/5	45.2-92.2
Trenches	Aluminum	NA	4/4	18,000-28,000
	Arsenic	NA	4/4	1.66-3.78
	Barium	NA	4/4	190-237
	Beryllium	NA	4/4	0.49-0.93
	Cadmium	NA	4/4	0.45-0.76
	Calcium	NA	4/4	1,550-2,530
	Chromium	NA	4/4	1.97-9.59
	Cobalt	NA	4/4	2.95-7.05
	Copper	NA	4/4	10.7-17.1
	Iron	NA	4/4	7,710-18,100
	Lead	NA	4/4	5.33-14
	Magnesium	NA	4/4	1,240-5,320
	Manganese	NA	4/4	183-546
	Mercury	0.015	1/4	0.019

TABLE 5 (Continued)

SUMMARY OF INORGANIC CHEMICALS DETECTED IN SOIL - 1991^a

Location	Chemical	Detection Limits (DL) For Nondetects (mg/kg)	Frequency of Detection	Range of Detection (a) (mg/kg)
	Nickel	3.8-6.8	2/4	2.5-9.21
	Potassium	NA	4/4	792-1,500
	Silver	0.3	2/4	0.37
	Sodium	NA	4/4	168-384
	Thallium	0.25	1/4	0.26
	Vanadium	NA	4/4	7.87-21.8
	Zinc	NA	4/4	18.8-51.7
Pit Borings	Aluminum	NA	11/12	7,330-14,900
	Antimony	3	1/12	20
	Arsenic	NA	11/12	4.52-12
	Barium	NA	11/12	41.8-136
	Beryllium	NA	11/12	0.37-0.668
	Cadmium	0.2	9/12	0.21-0.75
	Calcium	NA	11/12	4,060-23,900
	Chromium	NA	11/12	7.51-23.1
	Cobalt	NA	11/12	5.25-9
	Copper	NA	11/12	13.5-29.3
	Iron	NA	11/12	10,600-18,100
	Lead	NA	11/12	9.69-150
	Magnesium	NA	11/12	4,000-11,700
	Manganese	NA	11/12	292-523
	Mercury	0.015	2/12	0.138
	Nickel	7.12-8.99	8/12	7.98-10.7
	Potassium	NA	11/12	1,010-5,170
	Silver	0.15-0.3	2/12	0.38-0.8
	Sodium	NA	11/12	122-471
	Thallium	0.25	1/12	0.32
	Vanadium	NA	11/12	8.31-22.2
	Zinc	NA	11/12	35.1-96.3

Footnotes:

(a) See Appendix A, Table 5 for list of data qualifiers for inorganic samples.

(b) NA = Not applicable

TABLE 6

TOTAL PETROLEUM HYDROCARBONS IN SOIL SAMPLES AT THE ARRCOM SITE - 1991 (mg/kg)

SAMPLE ID	TPH CONCENTRATION	
	Laboratory Analysis (mg/kg)	Field Analysis (mg/kg)
PB-1-5	< 26	> 500
PB-4-4	1250 J	> 500
PB-6-25	< 26	> 500
PB-6-50	2690 J	> 500
T-1-A	146 J	77

TABLE 7

**ASSUMPTIONS USED TO ESTIMATE EXPOSURE OF ON-SITE RESIDENTS VIA
INGESTION AND INHALATION OF CONTAMINANTS IN WELL WATER - FUTURE USE SCENARIO**

<u>Parameter</u>	<u>Exposure Factors</u>
<u>Intake Rate</u>	
Water Ingestion	2 L/day
Vapor Inhalation	15 m ³ /day
<u>Exposure Frequency</u>	350 days/year
<u>Exposure Duration</u>	
Water Ingestion	30 years
Vapor Inhalation	30 years
<u>Body Weight</u>	70 kg
<u>Averaging Time</u>	70 years
<u>Contaminant Concentration</u>	
<u>Water Ingestion</u>	
0.003 gradient, K _d 0.317	0.029 ug/L
0.003 gradient, K _d 0.0412	0.033 ug/L
0.0006 gradient, K _d 0.317	0.14 ug/L
0.0006 gradient, K _d 0.0412	0.15 ug/L
<u>Vapor Inhalation</u>	
0.003 gradient, K _d 0.317	0.029 ug/L * 0.5 L/m ³
0.003 gradient, K _d 0.0412	0.033 ug/L * 0.5 L/m ³
0.0006 gradient, K _d 0.317	0.14 ug/L * 0.5 L/m ³
0.0006 gradient, K _d 0.0412	0.15 ug/L * 0.5 L/m ³

TABLE 8

**CHRONIC DAILY INTAKE RATES OF 1,1,2,2- TETRACHLOROETHANE CALCULATED
FOR EXPOSURES TO GROUNDWATER VIA THE INGESTION AND INHALATION PATHWAYS**

Parameter	Exposure Point Concentration	CDI (mg/kg/day)
Water Ingestion		
0.003 gradient, K_d 0.317	0.029 ug/L	3.4×10^{-7}
0.003 gradient, K_d 0.0412	0.033 ug/L	3.9×10^{-7}
0.0006 gradient, K_d 0.317	0.14 ug/L	1.6×10^{-6}
0.0006 gradient, K_d 0.0412	0.15 ug/L	1.8×10^{-6}
Vapor Inhalation		
0.003 gradient, K_d 0.317	0.029 ug/L * 0.5 L/m ³	1.3×10^{-6}
0.003 gradient, K_d 0.0412	0.033 ug/L * 0.5 L/m ³	1.5×10^{-6}
0.0006 gradient, K_d 0.317	0.14 ug/L * 0.5 L/m ³	6.2×10^{-6}
0.0006 gradient, K_d 0.0412	0.15 ug/L * 0.5 L/m ³	6.6×10^{-6}

TABLE 9

TOXICITY VALUES AND POTENTIAL CARCINOGENIC EFFECTS FOR CHEMICALS OF CONCERN AT ARRCOM

Chemical	Slope Factor/ Unit Risk	Weight-of-Evidence Classification	Type of Cancer	SF Basis/ SF Source
1,1,2,2- Tetrachloroethane	Oral: 2.00E-1 (mg/kg-day) ⁻¹	C	Liver	Gavage/IRIS
	Inhalation: 5.80E-5 (ug/m ³) ⁻¹	C	Liver	Gavage/IRIS

TABLE 10

**RISKS OF ON-SITE RESIDENTS FROM INGESTION AND INHALATION OF
WELL WATER – FUTURE USE SCENARIO**

Parameter	Risk
Water Ingestion	
0.003 gradient, K_d 0.317	7×10^{-8}
0.003 gradient, K_d 0.0412	8×10^{-8}
0.0006 gradient, K_d 0.317	3×10^{-7}
0.0006 gradient, K_d 0.0412	4×10^{-7}
Vapor Inhalation	
0.003 gradient, K_d 0.317	3×10^{-7}
0.003 gradient, K_d 0.0412	3×10^{-7}
0.0006 gradient, K_d 0.317	1×10^{-6}
0.0006 gradient, K_d 0.0412	1×10^{-6}
Total Excess Cancer Risk (Ingestion and Inhalation) ^a	
0.003 gradient, K_d 0.317	3×10^{-7}
0.003 gradient, K_d 0.0412	4×10^{-7}
0.0006 gradient, K_d 0.317	2×10^{-6}
0.0006 gradient, K_d 0.0412	2×10^{-6}

^a Total excess cancer risks were calculated by adding ingestion and inhalation risks using two significant figures and then rounding the total risk to one significant figure. Therefore, ingestion and inhalation risks in table may not add exactly to give total excess cancer risks.

APPENDIX B

RESPONSIVENESS SUMMARY

ARRCOM SITE RESPONSIVENESS SUMMARY

I. OVERVIEW

The Arrcom site is an abandoned waste oil recycling facility located 2.5 miles southwest of the City of Rathdrum, in Kootenai County, Idaho. Oil recycling operations began at the facility in the early 1960s. During operation, waste oils were trucked to the site, underwent processing, and were sold.

Waste oil and recycled oil were stored in tanks. Contamination of the environment occurred as a result of past oil spills from the operation and from leaking oil storage tanks. Sludge and waste oils were discarded in disposal pits on the property and spread on the on-site road.

EPA conducted a three phased emergency removal action to stabilize conditions at the site. A risk assessment was then conducted on the contaminants remaining in the soils after the last removal.

II. Community Relations

CERCLA requirements for public participation include releasing the Risk Assessment report and Proposed Plan to the public and providing a public comment period. These documents were placed in the information repositories and the public comment period was held from May 22, 1992 to June 20, 1992. EPA published a notice of the release of the Risk Assessment report and Proposed Plan and the 30 day public comment period in the Statesman Review on May 22, 1992.

The purpose of the Responsiveness Summary is to address public comments received on the Risk Assessment and Proposed plan. However, no comments or questions were received during the comment period.

APPENDIX C

ADMINISTRATIVE RECORD INDEX

U.S. ENVIRONMENTAL PROTECTION AGENCY
1200 Sixth Avenue
Seattle, Washington 98101

REMEDIAL ADMINISTRATIVE RECORD INDEX

for the

ARRCOM SUPERFUND SITE
Rathdrum, Idaho

June 29, 1992

U.S. ENVIRONMENTAL PROTECTION AGENCY
1200 Sixth Avenue
Seattle, Washington 98101

REMEDIAL ADMINISTRATIVE RECORD INDEX

for the

ARRCOM SUPERFUND SITE
Rathdrum, Idaho

May 19, 1992

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

HEADING: 1. 0. . SITE IDENTIFICATION

SUB-HEAD: 1. 1. . Correspondence

1. 1. .	- 0001	Microfilm Reel	Frame Begins	1	Ends	1
DATE:		01/25/82	PAGES:	1		
AUTHOR: B.L. Dehm/Saskatchewan Power Corporation						
ADDRESSEE: David E. Joscelyn/Arrcom Incorporated						
DESCRIPTION: Letter re: Waste Transformer Oil Shipment Documentation of the Oil's PCB Content						
1. 1. .	- 0002	Microfilm Reel	Frame Begins	1	Ends	1
DATE:		08/03/82	PAGES:	4		
AUTHOR: James C. Harris/EPA						
ADDRESSEE: Michael Brown/EPA						
DESCRIPTION: Cover letter and attached correspondence regarding hazardous waste manifests						
1. 1. .	- 0003	Microfilm Reel	Frame Begins	1	Ends	1
DATE:		08/31/82	PAGES:	5		
AUTHOR: John Osborn/EPA						
ADDRESSEE: Peter Evers/Ecology and Environment, Inc.						
DESCRIPTION: Memorandum re: Groundwater Sampling at Arrcom (Drexler Enterprises, Inc.) Rathdrum, Idaho						
1. 1. .	- 0004	Microfilm Reel	Frame Begins	1	Ends	1
DATE:		10/13/82	PAGES:	2		
AUTHOR: Donald A. Donaldson/EPA						
ADDRESSEE: Warren Bingham/						
DESCRIPTION: Laboratory Analysis Notice						
1. 1. .	- 0005	Microfilm Reel	Frame Begins	1	Ends	1
DATE:		04/29/83	PAGES:	6		
AUTHOR: Kenneth L. Babin/Panhandle Health District I						
ADDRESSEE: John Meyer/EPA						
DESCRIPTION: Letter re: current condition of tanks located at Arrcom site						

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

SUB-HEAD: 1. 2. . Background

1. 2. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
DATE: 01/13/83 PAGES: 2
AUTHOR: /
ADDRESSEE: /
DESCRIPTION: Draft stating the situation at Arrcom, work done to date and
cleanup strategy

SUB-HEAD: 1. 3. . Notification/Site Discovery

1. 3. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
DATE: 09/13/83 PAGES: 2
AUTHOR: Carl Kitz/EPA
ADDRESSEE: /
DESCRIPTION: Notification of Hazardous Waste Activity

1. 3. . - 0002 Microfilm Reel Frame Begins 1 Ends 1
DATE: 05/21/87 PAGES: 2
AUTHOR: Jeff Webb/EPA
ADDRESSEE: /
DESCRIPTION: Notification of Hazardous Waste Activity

SUB-HEAD: 1. 5. . Site Inspection Report/Documents

1. 5. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
DATE: 07/20/82 PAGES: 8
AUTHOR: Mike Brown/EPA
ADDRESSEE: /
DESCRIPTION: Trip Report, 7/20/82

1. 5. . - 0002 Microfilm Reel Frame Begins 1 Ends 1
DATE: 07/20/82 PAGES: 10
AUTHOR: EPA/
ADDRESSEE: /
DESCRIPTION: Document containing Establishment Inspection Report, Report of
Investigation, Schematic with Legend Attached, Collection
Reports, Polaroids of Site, Report from Ken Babin - Couer
D'Alene District Health

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

1. 5. . - 0003 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 08/30/82 PAGES: 19
 AUTHOR: Peter Evers/EPA/FIT
 ADDRESSEE: /
DESCRIPTION: Site Inspection Report

1. 5. . - 0004 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 07/20/82 PAGES: 1
 AUTHOR: Athena Lalikos/EPA
 ADDRESSEE: /
DESCRIPTION: Violation Assessment

SUB-HEAD: 1. 6. . Site Safety Plan/Study Plan

1. 6. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 09/21/82 PAGES: 10
 AUTHOR: Thomas Tobin/Ecology and Environment, Inc.
 ADDRESSEE: Bruce Zaczynski/Ecology and Environment, Inc.
DESCRIPTION: Site Safety Plan for Sampling Arrcom (Drexler Enterprises, Inc.)
 Rathdrum, Idaho

1. 6. . - 0002 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 06/03/83 PAGES: 17
 AUTHOR: Ron Blair/EPA
 ADDRESSEE: Gary O'Neal/EPA
DESCRIPTION: Site Safety Plan for Arrcom, Rathdrum, Idaho

1. 6. . - 0003 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 06/06/83 PAGES: 8
 AUTHOR: Gary L. O'Neal/EPA
 ADDRESSEE: /
DESCRIPTION: Study Plan, Arrcom, Rathdrum, Idaho

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

HEADING: 3. 0. . RISK ASSESSMENT

SUB-HEAD: 3. 1. . Correspondence/Handwritten Notes/Phone Memoranda

3. 1. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 01/03/91 PAGES: 2

AUTHOR: Fran Allans/EPA

ADDRESSEE: Joe Tieger/EPA

DESCRIPTION: Phone Memorandum between Allans and Tieger regarding the Arrcom Site - Record of Decision

3. 1. . - 0002 Microfilm Reel Frame Begins 1 Ends 1

DATE: 01/24/91 PAGES: 2

AUTHOR: Fran Allans/EPA

ADDRESSEE: Carl Kitz, EPA/Marg Norman and Dave Hansen, ICF

DESCRIPTION: Conference call between Allans, Kitz, Norman and Hansen regarding removals at Arrcom site

3. 1. . - 0003 Microfilm Reel Frame Begins 1 Ends 1

DATE: 04/15/92 PAGES: 1

AUTHOR: Bill Carberry/Ecology & Environment, Inc.

ADDRESSEE: Fran Allans/EPA

DESCRIPTION: Record of communication from Bill Carberru re: backfill for 1987 removal

SUB-HEAD: 3. 2. . Work Plan

3. 2. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 06/01/91 PAGES: 36

AUTHOR: ICF Technology Incorporated/

ADDRESSEE: Fran Allans/EPA

DESCRIPTION: Final Work Plan : Evaluation of the Arrcom Site Rathdrum, Idaho

SUB-HEAD: 3. 3. . Sampling and Analysis Plan

3. 3. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 06/01/91 PAGES: 95

AUTHOR: ICF Technology/

ADDRESSEE: Fran Allans/EPA

DESCRIPTION: Final : Field Investigation Sampling and Analysis Plan, Arrcom Site, Rathdrum, Idaho

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

3. 3. . - 0002 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 02/11/92 PAGES: 3
 AUTHOR: John P. Frerich/ICF Technology
 ADDRESSEE: Fran Allans/EPA
DESCRIPTION: Letter and attachments re: groundwater sampling plan

SUB-HEAD: 3. 4. . Sampling and Analysis Data

3. 4. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 11/04/91 PAGES: 53
 AUTHOR: Clark Carlson/EPA
 ADDRESSEE: Fran Allens/EPA
DESCRIPTION: Metals Analysis for ARRCOM Samples 91354700 - 91354710 -
 91354715 - 91354717, 91357422 - 91354738 and 91354740 (29 soil
 and 3 water samples)

3. 4. . - 0002 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 03/25/92 PAGES: 60
 AUTHOR: Donald Matheny/EPA
 ADDRESSEE: Fran Allans/EPA
DESCRIPTION: Data Validation Reports for ARRCOM, SAS No. 6701J and 7094J,
 Metals, Pesticides/PCB, Semi-Volatiles and Volatiles Analyses

3. 4. . - 0003 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 11/21/91 PAGES: 38
 AUTHOR: ICF Technology, Inc./
 ADDRESSEE: /
DESCRIPTION: Quality Assurance Report : Case No. 17025, Collection date
 08/26/91 through 08/30/91

3. 4. . - 0004 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 11/22/91 PAGES: 8
 AUTHOR: ICF Technolgy, Inc./
 ADDRESSEE: /
DESCRIPTION: Quality Assurance Report : Case No. SAS 6652J-02, Collection
 date 08/27/91 and 08/29/91

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

3. 4. . - 0005 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 11/22/91 PAGES: 11
 AUTHOR: ICF Technology, Inc./
 ADDRESSEE: /
DESCRIPTION: Quality Assurance Report : Case No. SAS 6652J-03, Collection
 Date 08/27/91 through 08/29/91

3. 4. . - 0006 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 11/22/91 PAGES: 8
 AUTHOR: ICF Technolgy, Inc./
 ADDRESSEE: /
DESCRIPTION: Quality Assurance Report : Case No. SAS6652J-01, Collection Date
 08/27/91 and 08/29/91

3. 4. . - 0007 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 11/23/91 PAGES: 11
 AUTHOR: ICF Technology, Inc./
 ADDRESSEE: /
DESCRIPTION: Quality Assurance Report : Case No. SAS6652J-04, Collection
 Date 08/26/91 through 08/30/91

3. 4. . - 0008 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 12/02/91 PAGES: 220
 AUTHOR: ICF Technolgy, Inc./
 ADDRESSEE: /
DESCRIPTION: Quality Assurance Report : Case No. 17025, SAS 6579HQ,
 Collection Date 08/26/91 through 08/30/91

3. 4. . - 0009 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 06/06/89 PAGES: 12
 AUTHOR: Richard W. Fullner/Ecology and Environment, Inc.
 ADDRESSEE: Carl. G. Kitz/EPA
DESCRIPTION: Trip report for groundwater monitoring at Arrcom

SUB-HEAD: 3. 5. . EPA Interview with Removal Contractor

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

3. 5. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 02/06/91 PAGES: 8
 AUTHOR: Fran Allans/EPA
 ADDRESSEE: File/
DESCRIPTION: Arrcom Site Rathdrum, Idaho : Interview with Ecology and
 Environment, Inc., EPA TAT Contractor for the 1987 and 1990
 Removal Actions (Author of Interview Notes : Fran Allans, EPA,
 Remedial Project Manager - Contains 2 maps and questions)

SUB-HEAD: 3. 6. . Site Characterization Data Evaluation

3. 6. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 03/01/91 PAGES: 8
 AUTHOR: Marjorie Norman/ICF Technology Incorporated
 ADDRESSEE: Fran Allans/EPA
DESCRIPTION: Cover letter and attached review of the Arrcom site
 characterization data

SUB-HEAD: 3. 7. . Risk Assessment

3. 7. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 05/01/92 PAGES: 299
 AUTHOR: ICF Technology Inc./
 ADDRESSEE: EPA Region 10/
DESCRIPTION: Risk Assessment Report Arrcom Site, Rathdrum, Idaho : Final

SUB-HEAD: 3. 8. . Proposed Plan

3. 8. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 05/20/92 PAGES: 6
 AUTHOR: EPA/
 ADDRESSEE: /
DESCRIPTION: Superfund Fact Sheet : Arrcom Proposed Plan : Rathdrum, Idaho

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

HEADING: 5. 0. . STATE COORDINATION

SUB-HEAD: 5. 2. . State ARAR's

5. 2. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 01/01/90 PAGES: 15

AUTHOR: /

ADDRESSEE: /

DESCRIPTION: Arrcom Superfund Site - State ARARs List - January 1990, also
contains list of designated uses for certain areas of the
Panhandle Basin in Idaho

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

HEADING: 6. 0. . ENFORCEMENT

SUB-HEAD: 6. 1. . Consent Decree

6. 1. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: / / PAGES: 22

AUTHOR: Environmental and Natural Resources Division/Dept. of Justice

ADDRESSEE: Timothy E. Flanigan/Dept. of Justice

DESCRIPTION: Cover letter and attached notice of consent decree, attached consent decree

6. 1. . - 0002 Microfilm Reel Frame Begins 1 Ends 1

DATE: 02/19/91 PAGES: 12

AUTHOR: Richard B. Steward, Miriam L. Chesslin/Dept. of Justice

ADDRESSEE: /

DESCRIPTION: U.S.A., plaintiff v. George Wally Drexler, Thomas Drexler, Warren Bingham, Atlantic Richfield Co. Inc., Columbia Lighting, Inc., and Kaiser Aluminum and Chemical Corp., defendants - Civil Action No. 91-0055NHLR - COMPLAINT

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

HEADING: 8. 0. . NATURAL RESOURCE TRUSTEES

SUB-HEAD: 8. 1. . Correspondence/PNRS

8. 1. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 09/23/91 PAGES: 3

AUTHOR: Jonathan P. Deason/U.S. Dept. of the Interior

ADDRESSEE: Charles E. Findley/EPA

DESCRIPTION: Letter containing preliminary natural resource survey

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

HEADING: 9. 0. . PUBLIC PARTICIPATION

SUB-HEAD: 9. 1. . Correspondence

9. 1. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 06/16/92 PAGES: 1

AUTHOR: Krista Rave, LeRoy Loiselle/EPA

ADDRESSEE: /

DESCRIPTION: Memo to the file explaining that community interviews mentioned in the 3/88 Community Relations Plan would not take place, citing waste of time and resources

SUB-HEAD: 9. 2. . Fact Sheets

9. 2. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 08/22/91 PAGES: 1

AUTHOR: EPA/

ADDRESSEE: /

DESCRIPTION: Superfund Fact Sheet : Arrcom Superfund Site, Rathdrum, Idaho
Additional Sampling Needed

9. 2. . - 0002 Microfilm Reel Frame Begins 1 Ends 1

DATE: 04/09/92 PAGES: 1

AUTHOR: EPA/

ADDRESSEE: /

DESCRIPTION: Superfund Fact Sheet : Arrcom Superfund Site, Rathdrum, Idaho :
Public Comment Period on Consent Decree From : April 9 to May 7, 1992

SUB-HEAD: 9. 3. . Newspaper Notices

9. 3. . - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 05/22/92 PAGES: 1

AUTHOR: The Spokesman Review and Spokane Chronicle/

ADDRESSEE: /

DESCRIPTION: Newspaper notices announcing public comment period for the proposed plan and notice of public availability of the administrative record

07/07/92

U. S. Environmental Protection Agency, Region 10

Page 12

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

ARRCOM - REMEDIAL ADMINISTRATIVE RECORD INDEX

HEADING: 10. 0. . TECHNICAL SOURCES AND GUIDANCE DOCUMENTS

SUB-HEAD: 10. 1. . EPA Guidance/Technical Sources

10. 1. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 05/05/92 PAGES: 5
 AUTHOR: EPA/
 ADDRESSEE: /
DESCRIPTION: List of EPA Guidances used for Arrcom Remedial Administrative
 Record

10. 1. . - 0002 Microfilm Reel Frame Begins 1 Ends 1
 DATE: 05/18/92 PAGES: 0
 AUTHOR: /
 ADDRESSEE: /
DESCRIPTION: Guidance and technical literature listed as bibliographic
 sources might not be listed separately in this index

SUB-HEAD: 10. 2. .

10. 2. . - 0001 Microfilm Reel Frame Begins 1 Ends 1
 DATE: / / PAGES: 0
 AUTHOR: /
 ADDRESSEE: /
DESCRIPTION: Documents listed as bibliographic sources to reports in this
 record are not listed separately in the index

THE FOLLOWING PORTIONS OF THE ARRCOM
REMOVAL ADMINISTRATIVE RECORD INDEX
ARE INCORPORATED BY REFERENCE INTO
THIS ARRCOM REMEDIAL ADMINISTRATIVE RECORD

SECTION 2.0 REMOVAL RESPONSE - 1983, 1987, 1990

- 2.1 Correspondence
- 2.2 Sampling Plans
 - 2.2.1 Sampling Plan/QA Project Plan
 - 2.2.2 Sampling Plan/QA Project Plan for
- 2.3 Sampling Data
 - 2.3.1 Sampling and Analysis Data
 - 2.3.2 Chain of Custody Forms
 - 2.3.3 Data Validation
- 2.4 On-Scene Coordinator's Reports
 - 2.4.1 Comments
- 2.5 Technical Assistance Team
- 2.6 Action Memo, 1987
- 2.7 Action Memo, 1990
 - 2.7.1 Time Exemption

SECTION 5.0 HEALTH ASSESSMENTS

SECTION 6.0 NATURAL RESOURCE TRUSTEES

SECTION 9.0 PUBLIC PARTICIPATION

ARRCOM - REMOVAL ADMINISTRATIVE RECORD INDEX

HEADING: 2. 0. . . REMOVAL RESPONSE

SUB-HEAD: 2. 1. . . Correspondence

2. 1. . - 0001 Microfilm Reel Frame Begins Ends

DATE: 08/30/83 PAGES: 1

AUTHOR: CARL KITZ/ERT, EPA

ADDRESSEE: GARY O'NEAL/ESI

DESCRIPTION: MEMO ON PLANS FOR IMMEDIATE REMOVAL ACTION

2. 1. . - 0002 Microfilm Reel Frame Begins Ends

DATE: 04/30/87 PAGES: 3

AUTHOR: ANDREW HAFFERTY/ECOLOGY AND ENVIRONMENT

ADDRESSEE: THOMAS TOBIN/ECOLOGY AND ENVIRONMENT

DESCRIPTION: FIT SUPPORT OF TAT PROJECT AT ARRCOM CO. FACILITY TO DO FIELD SCREENING USING PORTABLE GC

2. 1. . - 0003 Microfilm Reel Frame Begins Ends

DATE: / / PAGES: 1

AUTHOR: CARL KITZ/TAT, EPA

ADDRESSEE: JOHN OSBORN/FIT, EPA

DESCRIPTION: RE FIT SUPPORT OF SUPERFUND REMOVAL ACTION AT ARRCOM

2. 1. . - 0004 Microfilm Reel Frame Begins Ends

DATE: 05/22/87 PAGES: 2

AUTHOR: JOHN MEYER/EPA

ADDRESSEE: PATRICIA STORM/RISK ASSESSMENT COMMITTEE

DESCRIPTION: REQUEST FOR ASSISTANCE FROM THE RISK ASSESSMENT COMMITTEE TO DEVELOP CLEAN CRITERIA FOR REMOVAL.

2. 1. . - 0005 Microfilm Reel Frame Begins Ends

DATE: 06/09/87 PAGES: 1

AUTHOR: D. HENRY ELSEN/ORC, EPA

ADDRESSEE: ROBERT MACK/SMITH, ALLING, HUDSON AND O'CONNOR

DESCRIPTION: CLEANING OF THREE TRUCKS OWNED BY WALLY DREXLER AND RAMCOR DURING CLEANUP OF THE ARRCOM SITE

ARRCOM - REMOVAL ADMINISTRATIVE RECORD INDEX

2. 1. . - 0006 Microfilm Reel Frame Begins Ends

DATE: 07/09/87 PAGES: 1

AUTHOR: RICHARD FULLNER/ECOLOGY & ENVIRONMENT

ADDRESSEE: CARL KITZ/EPA

DESCRIPTION: COVER LETTER FOR MEMO COVERING REVISIONS TO THE POST-CLEANUP SAMPLING WORKPLAN

2. 1. . - 0007 Microfilm Reel Frame Begins Ends

DATE: 07/09/87 PAGES: 2

AUTHOR: WILLIAM CARBERRY/ECOLOGY & ENVIRONMENT

ADDRESSEE: RICHARD FULLNER/TATL, ECOLOGY & ENVIRONMENT

DESCRIPTION: ALTERATIONS TO THE ARRCOM CORPORATON FACILITY WORKPLAN/QA SAMPLING PLAN

2. 1. . - 0008 Microfilm Reel Frame Begins Ends

DATE: 07/02/87 PAGES: 1

AUTHOR: D. HENRY ELSSEN/ORC, EPA

ADDRESSEE: HERB KINNEY/DEPT. OF MOTOR VEHICLE LICENSING

DESCRIPTION: RE CONVERSION OF CONTAMINATED TRUCKS TO SCRAP METAL

2. 1. . - 0009 Microfilm Reel Frame Begins Ends

DATE: 01/21/88 PAGES: 2

AUTHOR: CARL KITZ/EPA

ADDRESSEE: CALVIN MCWHIRTER/CONTRACTS, EPA

DESCRIPTION: NEW COMPLETION DATE FOR REMOVAL WORK

2. 1. . - 0010 Microfilm Reel Frame Begins 1 Ends 1

DATE: 02/16/90 PAGES: 1

AUTHOR: Lee Marshall/EPA

ADDRESSEE: Wayne Grotheer/

DESCRIPTION: PRP proposed remedial action dated 2/9/90

2. 1. . - 0011 Microfilm Reel Frame Begins 1 Ends 1

DATE: 04/13/90 PAGES: 1

AUTHOR: Howard Orlean/EPA

ADDRESSEE: Dean Nigar/Idaho Dept. of Health and Welfare

DESCRIPTION: Transmitting documents relating to the Arrcom site

ARRCOM - REMOVAL ADMINISTRATIVE RECORD INDEX

2. 1. . - 0012 Microfilm Reel Frame Begins 1 Ends 1
DATE: 10/05/90 PAGES: 1
AUTHOR: Howard Orlean/EPA
ADDRESSEE: Marjorie Norman/ICF Technology Inc.
DESCRIPTION: Encloses the On-Scene Coordinator's Report for the second
removal action conducted in 1988.
2. 1. . - 0013 Microfilm Reel Frame Begins 1 Ends 1
DATE: 11/01/90 PAGES: 1
AUTHOR: Howard Orlean/EPA
ADDRESSEE: Marjorie Norman/ICF Technology Inc.
DESCRIPTION: Encloses a draft summary table of the 1990 post removal soil
sampling results, sampling grid location map for the 1990 removal
and post removal sampling results from the 1987 removal for
lead, PCB and PCP.
2. 1. . - 0014 Microfilm Reel Frame Begins 1 Ends 1
DATE: 01/30/91 PAGES: 1
AUTHOR: William L. Carberry/Ecology and Environment, Inc.
ADDRESSEE: Carl G. Kitz/EPA
DESCRIPTION: Encloses Arrcom OSC Report for the 1990 removal action
- SUB-HEAD: 2. 2. 1. Sampling Plan / QA Project Plan
2. 2. 1. - 0001 Microfilm Reel Frame Begins Ends
DATE: 03/30/87 PAGES: 41
AUTHOR: WILLIAM CARBERRY/ECOLOGY & ENVIRONMENT
ADDRESSEE: CARL KITZ/EPA
DESCRIPTION: TECHNICAL ASSISTANCE TEAM SAMPLING PLAN/QA/PROJECT PLAN
- SUB-HEAD: 2. 2. 2. Sampling Plan / QA Project Plan for Post-Removal
Assessment
2. 2. 2. - 0001 Microfilm Reel Frame Begins Ends
DATE: 06/18/87 PAGES: 63
AUTHOR: WILLIAM CARBERRY/ECOLOGY & ENVIRONMENT
ADDRESSEE: CARL KITZ/EPA
DESCRIPTION: TECHNICAL ASSISTANCE TEAM SAMPLING PLAN/QA PROJECT PLAN FOR
POST-REMOVAL ASSESSMENT AT ARRCOM, WITH COVER LETTER

ARRCOM - REMOVAL ADMINISTRATIVE RECORD INDEX

SUB-HEAD: 2. 2. 3. TAT Sampling Plan, April 1990

2. 2. 3. - 0001 Microfilm Reel Frame Begins 1 Ends 1
DATE: 04/01/90 PAGES: 45
AUTHOR: Ecology and Environment, Inc./
ADDRESSEE: Carl Kitz/EPA
DESCRIPTION: Technical Assistance Team Sampling and Analysis Plan For: Arrcom Corporation (a.k.a. Drexler Enterprises, Inc.)

SUB-HEAD: 2. 3. 1. Sampling & Analytical Data

2. 3. 1. - 0001 Microfilm Reel Frame Begins Ends
DATE: / / PAGES: 1
AUTHOR: /
ADDRESSEE: /
DESCRIPTION: SAMPLING PROCEDURES

2. 3. 1. - 0002 Microfilm Reel Frame Begins Ends
DATE: / / PAGES: 1
AUTHOR: /EPA
ADDRESSEE: /
DESCRIPTION: INITIAL PROCEDURES CHECKLIST, ARRCOM CORPORATION CLEANUP

2. 3. 1. - 0003 Microfilm Reel Frame Begins Ends
DATE: 01/05/82 PAGES: 1
AUTHOR: B.L. DEHM/
ADDRESSEE: /
DESCRIPTION: APPARATUS REPAIR SHOP, WASTE TRANSFORMER OIL SAMPLES, RESULTS OF TESTING

2. 3. 1. - 0004 Microfilm Reel Frame Begins Ends
DATE: 01/19/82 PAGES: 1
AUTHOR: W.R. DINSMORE/CAN TEST LTD.
ADDRESSEE: BARRY DEHM/SASKATCHEWAN POWER CORP.
DESCRIPTION: SAMPLE TEST RESULTS FOR THE PRESENCE OF POLYCHLORINATED BIPHENYLS IN THE SIX TRANSFORMER OIL SAMPLES

ARRCOM - REMOVAL ADMINISTRATIVE RECORD INDEX

2. 3. 1. - 0005 Microfilm Reel Frame Begins Ends

DATE: 01/25/82 PAGES: 1

AUTHOR: B.L. DEHM/SASKATCHEWAN POWER CORP.

ADDRESSEE: DAVID JOSCELYN/ARRCOM

DESCRIPTION: COVER LETTER SENT WITH TRANSFORMER OIL SAMPLE RESULTS
(3.5.2-0001 AND 3.5.2-0002)

2. 3. 1. - 0006 Microfilm Reel Frame Begins Ends

DATE: 07/20/82 PAGES: 18

AUTHOR: ATHENA LALIKOS/EPA

ADDRESSEE: /

DESCRIPTION: COLLECTION REPORTS

2. 3. 1. - 0007 Microfilm Reel Frame Begins Ends

DATE: 10/13/82 PAGES: 2

AUTHOR: DONALD DONALDSON/COMPLIANCE SECTION, TOXIC SUBSTANCES CONTROL
BRANCH, EPA

ADDRESSEE: WARREN BINGHAM/

DESCRIPTION: LABORATORY ANALYSIS NOTICE

2. 3. 1. - 0008 Microfilm Reel Frame Begins Ends

DATE: 06/06/83 PAGES: 15

AUTHOR: REGION X LABORATORY/EPA

ADDRESSEE: /

DESCRIPTION: PESTICIDE ANALYSIS - WATER. PCBS. 6/6-7/83

2. 3. 1. - 0009 Microfilm Reel Frame Begins Ends

DATE: 06/06/83 PAGES: 9

AUTHOR: REGION X LABORATORY/EPA

ADDRESSEE: /

DESCRIPTION: PRIORITY POLLUTANTS DATA REPORT - METALS. 6/6-7/83

2. 3. 1. - 0010 Microfilm Reel Frame Begins Ends

DATE: 06/07/83 PAGES: 15

AUTHOR: REGION X LABORATORY/EPA

ADDRESSEE: /

DESCRIPTION: PESTICIDE ANALYSIS - OIL, PCBS.

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2. 3. 1. - 0011 Microfilm Reel Frame Begins Ends
DATE: 06/07/83 PAGES: 12
AUTHOR: REGION X LABORATORY/EPA
ADDRESSEE: /
DESCRIPTION: PRIORITY POLLUTANTS DATA REPORT - METALS

2. 3. 1. - 0012 Microfilm Reel Frame Begins Ends
DATE: 06/07/83 PAGES: 12
AUTHOR: REGION X LABORATORY/EPA
ADDRESSEE: R. COURSON/EPA
DESCRIPTION: METAL DATA-AA-HGA 2100 (WATER)

2. 3. 1. - 0013 Microfilm Reel Frame Begins Ends
DATE: / / PAGES: 7
AUTHOR: /
ADDRESSEE: /
DESCRIPTION: TANK DESCRIPTIONS AND SOME DATA INFORMATION

2. 3. 1. - 0014 Microfilm Reel Frame Begins Ends
DATE: 06/08/83 PAGES: 12
AUTHOR: REGION X LABORATORY/EPA
ADDRESSEE: R. COURSON/EPA
DESCRIPTION: SEDIMENTS DATA

2. 3. 1. - 0015 Microfilm Reel Frame Begins Ends
DATE: 06/08/03 PAGES: 13
AUTHOR: REGION X LABORATORY/EPA
ADDRESSEE: R. COURSON/EPA
DESCRIPTION: METAL DATA-AA-HGA 2100 (OIL)

2. 3. 1. - 0016 Microfilm Reel Frame Begins Ends
DATE: 06/08/83 PAGES: 11
AUTHOR: REGION X LABORATORY/EPA
ADDRESSEE: R. COURSON/EPA
DESCRIPTION: METAL DATA-AA-HGA 2100 (WATER)

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2. 3. 1. - 0017 Microfilm Reel Frame Begins Ends

DATE: 06/08/83 PAGES: 24

AUTHOR: REGION X LABORATORY/EPA

ADDRESSEE: R. COURSON/EPA

DESCRIPTION: MERCURY DATA-AA-FLAMELESS

2. 3. 1. - 0018 Microfilm Reel Frame Begins Ends

DATE: 06/14/83 PAGES: 1

AUTHOR: BILL SCHMIDT/FIELD OPERATIONS & TECHNICAL SUPPORT BRANCH, EPA

ADDRESSEE: ARNOLD GAHLER/MANCHESTER LABORATORY, EPA

DESCRIPTION: COVER LETTER ATTACHED TO 3.5.2-0007; MENTION OF SAMPLE STORAGE

2. 3. 1. - 0019 Microfilm Reel Frame Begins Ends

DATE: 06/06/83 PAGES: 1

AUTHOR: WILLIAM SCHMIDT/FIELD OPERATIONS & TECHNICAL SUPPORT BRANCH, EPA

ADDRESSEE: /

DESCRIPTION: EPA REGIN 10 LABORATORY METAL ANALYSIS REQUIRED--WATER

2. 3. 1. - 0020 Microfilm Reel Frame Begins Ends

DATE: 06/30/83 PAGES: 43

AUTHOR: J.N. BLAZEIVICH/EPA

ADDRESSEE: /

DESCRIPTION: BASE/NEUTRAL, ACIDS, TENTATIVELY IDENTIFIED COMPOUNDS, AND VOLATILES DATA REPORTS.

2. 3. 1. - 0021 Microfilm Reel Frame Begins Ends

DATE: 08/11/83 PAGES: 2

AUTHOR: BILL SCHMIDT/FIELD OPERATIONS SECTION, EPA

ADDRESSEE: ARNOLD GAHLER/MANCHESTER LABORATORY

DESCRIPTION: RE ADDITIONAL CHEMICAL ANALYSES NECESSARY ON SELECTED ARRCOM SAMPLES

2. 3. 1. - 0022 Microfilm Reel Frame Begins Ends

DATE: 09/07/83 PAGES: 2

AUTHOR: REGION X LABORATORY/EPA

ADDRESSEE: R. COURSON/EPA

DESCRIPTION: GENERAL PURPOSE DATA SHEET - DETERMINATION PH

ARRCOM - REMOVAL ADMINISTRATIVE RECORD INDEX

2. 3. 1. - 0023 Microfilm Reel Frame Begins Ends

DATE: 09/09/83 PAGES: 2

AUTHOR: LAURENCE ASHLEY/ANALYTICAL SERVICES DIV., DEPT. OF ECOLOGY

ADDRESSEE: ARNOLD GAHLER/EPA

DESCRIPTION: FLASH POINT ANALYSIS FROM THE D.O.T. GRANDVIEW, IDAHO SAMPLES.

2. 3. 1. - 0024 Microfilm Reel Frame Begins Ends

DATE: 11/15/83 PAGES: 29

AUTHOR: HUSSEIN ALDIS/ECOLOGY AND ENVIRONMENT

ADDRESSEE: JOHN OSBORN/EPA

DESCRIPTION: ARRCOM WASTE SCREENING FOR CARCINOGENIC VOLATILES

2. 3. 1. - 0025 Microfilm Reel Frame Begins Ends

DATE: / / PAGES: 3

AUTHOR: /

ADDRESSEE: /

DESCRIPTION: CHEMICAL ANALYSIS OF 10 TANKS PLUS MAP OF AREA

2. 3. 1. - 0026 Microfilm Reel Frame Begins Ends

DATE: 05/15/83 PAGES: 3

AUTHOR: WILLIAM CARBERRY/ECOLOGY AND ENVIRONMENT

ADDRESSEE: RICHARD FULLNER/TATL, ECOLOGY AND ENVIRONMENT

DESCRIPTION: ARRCOM CORPORATION: ANALYTICAL RESULTS OF INDIVIDUAL TANK SAMPLES

2. 3. 1. - 0027 Microfilm Reel Frame Begins Ends

DATE: 05/26/87 PAGES: 1

AUTHOR: /

ADDRESSEE: /

DESCRIPTION: PCB RESULTS FIT FIELD SCREENING

2. 3. 1. - 0028 Microfilm Reel Frame Begins Ends

DATE: 06/05/87 PAGES: 3

AUTHOR: /

ADDRESSEE: /

DESCRIPTION: SAMPLE TRACKING BY ITEM - TANKS, DRUMS, BOILER, ETC.

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2. 3. 1. - 0028 Microfilm Reel Frame Begins Ends

DATE: / / PAGES: 0

AUTHOR: /

ADDRESSEE: /

DESCRIPTION:

2. 3. 1. - 0029 Microfilm Reel Frame Begins Ends

DATE: 08/24/87 PAGES: 7

AUTHOR: SUSAN M. COFFEY/COFFEY LABORATORIES, INC.

ADDRESSEE: /REIDEL ENVIRONMENTAL SERVICES

DESCRIPTION: PCB, VOLATILE ORGANICS, AND EP TOXICITY ANALYSES

2. 3. 1. - 0030 Microfilm Reel Frame Begins Ends

DATE: / / PAGES: 5

AUTHOR: MIKE C./

ADDRESSEE: CARL KITZ/EPA

DESCRIPTION: RESULTS OF PCB ANALYSIS PERFORMED ON ARRCOM SLUDGE DRUMS

2. 3. 1. - 0031 Microfilm Reel Frame Begins Ends

DATE: 02/10/88 PAGES: 144

AUTHOR: THOMAS CAMMARATA, ANDREW HAFFERTY/ECOLOGY AND ENVIRONMENT

ADDRESSEE: JOHN OSBORN/EPA

DESCRIPTION: QUALITY ASSURANCE OF SAMPLES COLLECTED AT ARRCOM FACILITY

2. 3. 1. - 0032 Microfilm Reel Frame Begins Ends

DATE: 01/30/88 PAGES: 44

AUTHOR: /ECOLOGY AND ENVIRONMENT

ADDRESSEE: /

DESCRIPTION: POST CLEANUP SAMPLING RESULTS, ARRCOM CORPORATION

2. 3. 1. - 0033 Microfilm Reel Frame Begins Ends

DATE: / / PAGES: 18

AUTHOR: /ECOLOGY AND ENVIRONMENT

ADDRESSEE: /EPA

DESCRIPTION: MAPS OF VARIOUS CHEMICAL CONCENTRATIONS FROM SAMPLING WELLS AT ARRCOM. (TRANSPARENCIES AVAILABLE AT EPA REGION X HEADQUARTERS)

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2. 3. 1. - 0034 Microfilm Reel Frame Begins 1 Ends 1

DATE: 05/15/87 PAGES: 4

AUTHOR: Richard W. Fullner/Ecology and Environment, Inc.

ADDRESSEE: Carl G. Kitz/EPA

DESCRIPTION: Encloses memo summarizing the pre-removal screening data for the tank samples at the Arrcom Corp. facility. The memo finalizes the preliminary data in Table 3 of the Arrcom Site Assessment report.

2. 3. 1. - 0035 Microfilm Reel Frame Begins 1 Ends 1

DATE: 08/21/87 PAGES: 42

AUTHOR: Roger McGinnis/Ecology and Environment, Inc.

ADDRESSEE: John E. Osborn/EPA

DESCRIPTION: Polychlorinated Biphenyl, Aromatic Hydrocarbon, and Chlorinated Volatile Screening Results, Arrcom Corp. Facility, Rathdrum, Idaho

2. 3. 1. - 0036 Microfilm Reel Frame Begins 1 Ends 1

DATE: 09/29/87 PAGES: 21

AUTHOR: Thomas Cammarata/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 18 soil samples, Case 7541 (inorganics), Arrcom

2. 3. 1. - 0037 Microfilm Reel Frame Begins 1 Ends 1

DATE: 09/29/87 PAGES: 23

AUTHOR: Thomas Cammarata/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 20 soil samples, Case 7541 (inorganics), Arrcom

2. 3. 1. - 0038 Microfilm Reel Frame Begins 1 Ends 1

DATE: 09/29/87 PAGES: 23

AUTHOR: Thomas Cammarata/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 20 soil samples, Case 7541 (inorganics), Arrcom

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2. 3. 1. - 0039 Microfilm Reel Frame Begins 1 Ends 1

DATE: 09/29/87 PAGES: 23

AUTHOR: Thomas Cammarata/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 20 soil samples, Case 7541 (inorganics), Arrcom

2. 3. 1. - 0040 Microfilm Reel Frame Begins 1 Ends 1

DATE: 09/29/87 PAGES: 13

AUTHOR: Thomas Cammarata/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 10 soil samples, Case 7541 (inorganics), Arrcom

2. 3. 1. - 0041 Microfilm Reel Frame Begins 1 Ends 1

DATE: 09/29/87 PAGES: 23

AUTHOR: Thomas Cammarata/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 20 soil samples, Case 7541 (inorganics), Arrcom

2. 3. 1. - 0042 Microfilm Reel Frame Begins 1 Ends 1

DATE: 10/06/87 PAGES: 64

AUTHOR: Patrich McGrath/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 15 soil samples, Case 7541 (organics), Arrcom

2. 3. 1. - 0043 Microfilm Reel Frame Begins 1 Ends 1

DATE: 11/24/87 PAGES: 85

AUTHOR: Roger McGinnis/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 20 soil samples, Case 7541 (organics), Arrcom

2. 3. 1. - 0044 Microfilm Reel Frame Begins 1 Ends 1

DATE: 11/25/87 PAGES: 71

AUTHOR: Lynn Guilford/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 13 soil samples, Case 7541 (organics), Arrcom

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2. 3. 1. - 0045 Microfilm Reel Frame Begins 1 Ends 1

DATE: 01/11/88 PAGES: 9

AUTHOR: Mike Cunningham/Riedel Environmental Services, Inc;

ADDRESSEE: Cheryl Williams/Rollins Environmental Services, Inc.

DESCRIPTION: Encloses laboratory summary sheets for the analytical results for the Arrcom Facility.

SUB-HEAD: 2. 3. 2. Chain of Custody

2. 3. 2. - 0001 Microfilm Reel Frame Begins Ends

DATE: 06/07/83 PAGES: 3

AUTHOR: RON W. BLAIR/EPA

ADDRESSEE: MICHAEL F. MATTA/

DESCRIPTION: CHAIN OF CUSTODY RECORD

2. 3. 2. - 0002 Microfilm Reel Frame Begins 1 Ends 1

DATE: 12/11/97 PAGES: 17

AUTHOR: EPA/

ADDRESSEE: /

DESCRIPTION: Field Sample Data and Chain of Custody Sheets

SUB-HEAD: 2. 3. 3. Data Validation

2. 3. 3. - 0001 Microfilm Reel Frame Begins 1 Ends 1

DATE: 11/24/87 PAGES: 81

AUTHOR: Roger McGinnis/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA of 20 soil samples for Case 7541 (organics), Arrcom

2. 3. 3. - 0002 Microfilm Reel Frame Begins 1 Ends 1

DATE: 11/25/87 PAGES: 71

AUTHOR: Lynn Guilford/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 13 soil samples for Case 7541 (organics), Arrcom

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2. 3. 3. - 0003 Microfilm Reel Frame Begins 1 Ends 1

DATE: 12/11/87 PAGES: 66

AUTHOR: Lynn Guilford/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 15 soil samples for Case 7541 (organics), Arrcom

2. 3. 3. - 0004 Microfilm Reel Frame Begins 1 Ends 1

DATE: 12/16/87 PAGES: 121

AUTHOR: James Herndon/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 20 soil samples for Case 7541 (organics), Arrcom

2. 3. 3. - 0005 Microfilm Reel Frame Begins 1 Ends 1

DATE: 12/23/87 PAGES: 152

AUTHOR: Thomas Cammarata/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 25 soil samples for Case 7541 (organics), Arrcom

2. 3. 3. - 0006 Microfilm Reel Frame Begins 1 Ends 1

DATE: 01/28/88 PAGES: 10

AUTHOR: Lila Accra/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 4 soil samples for Case 7541 (inorganics), Arrcom

2. 3. 3. - 0007 Microfilm Reel Frame Begins 1 Ends 1

DATE: 02/10/88 PAGES: 68

AUTHOR: James Herndon/Ecology and Environment, Inc.

ADDRESSEE: John Osborn/EPA

DESCRIPTION: QA review of 10 soil samples for Case 7541 (organics), Arrcom

2. 3. 3. - 0008 Microfilm Reel Frame Begins 1 Ends 1

DATE: 06/06/89 PAGES: 38

AUTHOR: Richard W. Fullner/Ecology and Environment, Inc.

ADDRESSEE: Carl G. Kitz/EPA

DESCRIPTION: Encloses trip report and sampling results for groundwater sampling at Arrcom

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SUB-HEAD: 2. 4. . On-Scene Coordinator's Report

2. 4. . - 0001 Microfilm Reel Frame Begins Ends

DATE: 08/23/83 PAGES: 2

AUTHOR: TOM JOHNSON/TATL EPA

ADDRESSEE: CARL KITZ/EPA

DESCRIPTION: RE INFORMATION AND DOCUMENTS GATHERED FOR UPCOMING REMOVAL ACTION, INCLUDING CLEANUP CONTRACTOR'S CAPABILITIES, INFORMATION ON SITE DISPOSAL REQUIREMENTS, AND DRAFT SITE SAFETY PLAN

2. 4. . - 0002 Microfilm Reel Frame Begins Ends

DATE: 12/16/83 PAGES: 1

AUTHOR: THOMAS JOHNSON/WESTON-SPER

ADDRESSEE: JAMES WILLMANN/EPA

DESCRIPTION: COVER LETTER FOR FINAL ON SCENE COORDIANTOR'S REPORT FOR THE IMMEDIATE REMOVAL ACTION. ATTACHED TO 2.4-0002 TO 0004.

2. 4. . - 0003 Microfilm Reel Frame Begins Ends

DATE: 09/23/83 PAGES: 1

AUTHOR: JAMES WILLMANN/EPA

ADDRESSEE: THOMAS JOHNSON/WESTON-SPER

DESCRIPTION: TECHNICAL DIRECTION DOCUMENT, OHM EMERGENCY RESPONSE AND SPILL PREVENTION PROGRAM. ATTACHED TO 2.4-0002 THROUGH 0004.

2. 4. . - 0004 Microfilm Reel Frame Begins Ends

DATE: / / PAGES: 1

AUTHOR: JAMES WILLMANN/EPA

ADDRESSEE: TEAM MEMBERS/

DESCRIPTION: COVER LETTER FOR FINAL ON SCENE COORDINATOR'S REPORT FOR IMMEDIATE REMOVAL ACTION. ATTACHED TO 2.4-0002 THROUGH 0004.

2. 4. . - 0005 Microfilm Reel Frame Begins Ends

DATE: 12/01/83 PAGES: 41

AUTHOR: REGION X TECHNICAL ASSISTANCE TEAM/EPA

ADDRESSEE: /

DESCRIPTION: FEDERAL ON-SCENE COORDINATOR'S REPORT, PLUS COVER LETTER

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2. 4. . - 0006 Microfilm Reel Frame Begins 1 Ends 1

DATE: 05/20/87 PAGES: 33

AUTHOR: CARL KITZ/EPA

ADDRESSEE: /

DESCRIPTION: ON SCENE COORDINATOR'S DAILY REPORTS DURING REMOVAL ACTION, FROM MAY 20 THROUGH JULY 2, MISSING #22

2. 4. . - 0007 Microfilm Reel Frame Begins Ends

DATE: 05/30/87 PAGES: 9

AUTHOR: WILLIAM FREUTEL/

ADDRESSEE: CARL KITZ/EPA

DESCRIPTION: ON SCENE COORDINATOR'S REPORT, 5/28/87 AND 6/1/87 THROUGH 6/13/87. ATTACHED TO 2.4-0007 THROUGH 0011

2. 4. . - 0008 Microfilm Reel Frame Begins Ends

DATE: 05/28/87 PAGES: 14

AUTHOR: WILLIAM FREUTEL/

ADDRESSEE: /

DESCRIPTION: LOG BOOK, 5/28/87 THROUGH 6/30/87. ATTACHED TO 2.4-0007 THROUGH 0011

2. 4. . - 0009 Microfilm Reel Frame Begins Ends

DATE: 05/27/87 PAGES: 2

AUTHOR: /

ADDRESSEE: /

DESCRIPTION: DISPOSAL OPTIONS--PROJECTED COSTS. ATTACHED TO 2.4-0007 THROUGH 0011.

2. 4. . - 0010 Microfilm Reel Frame Begins Ends

DATE: 06/11/87 PAGES: 1

AUTHOR: MIKE CUNNINGHAM AND WILLIAM FREUTEL/

ADDRESSEE: /

DESCRIPTION: AIR ROTARY DRILLING BIDS. ATTACHED TO 2.4-0007 THROUGH 0011.

2. 4. . - 0011 Microfilm Reel Frame Begins Ends

DATE: 06/01/87 PAGES: 2

AUTHOR: WILLIAM FREUTEL/

ADDRESSEE: /

DESCRIPTION: THREE PHOTOS OF SITE, NEAR THE END OF REMOVAL ACTION. ATTACHED TO 2.4-0007 THROUGH 0011.

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2. 4. . - 0012 Microfilm Reel Frame Begins Ends

DATE: 06/01/88 PAGES: 403

AUTHOR: CARL KITZ/EPA

ADDRESSEE: /EPA

DESCRIPTION: ON-SCENE COORDINATOR'S REPORT FOR: ARRCOM CORPORATION RATHDRUM,
IDAHO

2. 4. . - 0013 Microfilm Reel Frame Begins 1 Ends 1

DATE: 01/01/91 PAGES: 134

AUTHOR: Ecology and Environment, Inc./

ADDRESSEE: Carl G. Kitz/EPA

DESCRIPTION: On-Scene Coordinator's Report for : Arrcom Corporation
Rathdrum, Idaho

SUB-HEAD: 2. 4. 1. Comments

2. 4. 1. - 0001 Microfilm Reel Frame Begins Ends

DATE: 01/25/90 PAGES: 4

AUTHOR: Dean Nygard/State of Idaho, Dept. of Health and Welfare

ADDRESSEE: Lee Marshall/EPA

DESCRIPTION: Letter transmitting comments to On-Scene Coordinator's Report
and State ARAR's (See Section 9.4 0001 for ARAR's List)

SUB-HEAD: 2. 5. 1. TAT Activities Report, 9/17-23/83

2. 5. 1. - 0001 Microfilm Reel Frame Begins Ends

DATE: 10/28/83 PAGES: 21

AUTHOR: THOMAS JOHNSON/TAT, WESTON-SPER

ADDRESSEE: JAMES WILLMANN/EPA

DESCRIPTION: TAT ACTIVITIES REPORT: HAZARDOUS WASTE SITE CLEANUP, ARRCOM
CORPORATION, 17-23 SEPTEMBER 1983, WITH COVER LETTER AND
TECHNICAL DIRECTION DOCUMENT

2. 5. 1. - 0002 Microfilm Reel Frame Begins 1 Ends 1

DATE: 02/09/86 PAGES: 3

AUTHOR: William Carberry/Ecology & Environment, Inc.

ADDRESSEE: Richard Fullner/Ecology & Environment, Inc.

DESCRIPTION: Trip Report : Arrcom Oil Recycling Facility : site visit 2/3/86
[Report actually sites 2/3/87 as date of trip report]

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SUB-HEAD: 2. 5. 2. TAT Site Assessment Final Report, 4/87

2. 5. 2. - 0001 Microfilm Reel Frame Begins Ends
DATE: 04/01/87 PAGES: 57
AUTHOR: WILLIAM CARBERRY/ECOLOGY & ENVIRONMENT
ADDRESSEE: CARL KITZ/EPA
DESCRIPTION: TECHNICAL ASSISTANCE TEAM SITE ASSESSMENT FINAL REPORT

SUB-HEAD: 2. 5. 3. Bid Spec: Drill, Sampling, Monitor Wells, Soil Augering Program

2. 5. 3. - 0001 Microfilm Reel Frame Begins Ends
DATE: 06/01/87 PAGES: 22
AUTHOR: /ECOLOGY & ENVIRONMENT
ADDRESSEE: /
DESCRIPTION: BID SPECIFICATION: DRILLING, SAMPLING, INSTALLATION OF MONITORING WELLS & SOIL AUGERING

SUB-HEAD: 2. 6. Action Memorandum, 1987

2. 6. - 0001 Microfilm Reel Frame Begins Ends
DATE: 04/13/87 PAGES: 7
AUTHOR: JAMES C. WILLMANN/EPA
ADDRESSEE: CHARLES E. FINDLEY/EPA
DESCRIPTION: ACTION MEMORANDUM - REMOVAL, ARRCOM, CORP. FACILITY

SUB-HEAD: 2. 7. Action Memorandum, 1990

2. 7. - 0001 Microfilm Reel Frame Begins Ends
DATE: 04/09/90 PAGES: 16
AUTHOR: James M. Everts/EPA
ADDRESSEE: Charles E. Findley/Philip Millam/EPA
DESCRIPTION: Action Memorandum - Removal, ARRCOM Corporation facility, Kootenai County, Idaho National Priority Site

SUB-HEAD: 2. 7. 1. Time Exemption for Continuance of Removal Activities

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2. 7. 1. - 0001 Microfilm Reel Frame Begins Ends

DATE: 04/09/90 PAGES: 3

AUTHOR: Carl Kitz/EPA

ADDRESSEE: Charles E. Findley/James Everts/Philip Millam/EPA

DESCRIPTION: Memorandum: One Year Time Exemption to allow Continuation of
Removal Activities at the ARRCOM, Rathdrum, Idaho site

04/27/92

U. S. Environmental Protection Agency, Region 10

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HEADING: 5. 0. . HEALTH ASSESSMENTS

SUB-HEAD: 5. 1. . Correspondence

5. 1. . - 0001 Microfilm Reel Frame Begins Ends

DATE: 07/12/88 PAGES: 1

AUTHOR: PHILIP MILLAM/EPA

ADDRESSEE: STEVE VON ALLMAN/ATSDR/OHA/HACA

DESCRIPTION: RESPONSE TO THE DRAFT PRELIMINARY HEALTH ASSESSMENT

SUB-HEAD: 5. 2. . ASTDR Health Assessment

5. 2. . - 0001 Microfilm Reel Frame Begins Ends

DATE: 07/27/88 PAGES: 3

AUTHOR: OFFICE OF HEALTH ASSESSMENT/ATSDR

ADDRESSEE: /

DESCRIPTION: PRELIMINARY HEALTH ASSESSMENT FOR ARRCOM CORPORATION

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HEADING: 6. 0. . NATURAL RESOURCE TRUSTEES

SUB-HEAD: 6. 1. . Correspondence

6. 1. . - 0001 Microfilm Reel Frame Begins Ends

DATE: 02/23/84 PAGES: 1

AUTHOR: BRUCE BLANCHARD/U.S. DEPT. OF THE INTERIOR

ADDRESSEE: GENE LUCERO/OFFICE OF WASTE PROGRAMS ENFORCEMENT, EPA

DESCRIPTION: RE PRELIMINARY NATURAL RESOURCES SURVEY OF THE ARRCOM SITE TO
DETERMINE SECRETARY OF THE INTERIOR'S TRUST RESPONSIBILITIES.

6. 1. . - 0002 Microfilm Reel Frame Begins Ends

DATE: 05/15/85 PAGES: 1

AUTHOR: KRIS MOSER/IDAHO FISH & GAME

ADDRESSEE: KATHRYN M. DAVIDSON/EPA

DESCRIPTION: NOTIFICATION OF NO FISH AND WILDLIFE RESOURCE PROBLEMS
ASSOCIATED WITH ARRCOM SITE

04/27/92

U. S. Environmental Protection Agency, Region 10

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HEADING: 7. 0. . PUBLIC PARTICIPATION

SUB-HEAD: 7. 1. . Comments and Responses

7. 1. . - 0001 Microfilm Reel

Frame Begins

Ends

DATE: 04/23/85

PAGES: 1

AUTHOR: DAVE SALOIS/ENGINEERING & TECHNICAL SERVICES DIVISION, KOOTENAI COUNTY

ADDRESSEE: KATHRYN DAVIDSON/EPA

DESCRIPTION: RE KOOTENAI COUNTY'S PARTICIPATION IN COMMUNITY RELATION ACTIVITIES CONCERNING THE SITE

SUB-HEAD: 7. 2. . Community Relations Plan

7. 2. . - 0001 Microfilm Reel

Frame Begins

Ends

DATE: 03/11/88

PAGES: 9

AUTHOR: MICHELLE ANDERSON/EPA

ADDRESSEE: JUDI CRANER/RATHDRUM LIBRARY

DESCRIPTION: COMMUNITY RELATIONS PLAN, WITH COVER LETTER

SUB-HEAD: 7. 3. . Fact Sheets and Press Releases

7. 3. . - 0001 Microfilm Reel

Frame Begins

Ends

DATE: / /

PAGES: 3

AUTHOR: /

ADDRESSEE: /

DESCRIPTION: FY 85 HEALTH ADVISORIES

7. 3. . - 0002 Microfilm Reel

Frame Begins

Ends

DATE: / /

PAGES: 1

AUTHOR: /

ADDRESSEE: /

DESCRIPTION: PROPOSED POLICY ON DRINKING WATER ACTION LEVELS

7. 3. . - 0003 Microfilm Reel

Frame Begins

Ends

DATE: 05/08/87

PAGES: 1

AUTHOR: RICHARD FULLNER/TAT, ECOLOGY & ENVIRONMENT

ADDRESSEE: CARL KITZ/EPA

DESCRIPTION: COVER LETTER FOR 7.3-0004

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7. 3. .	- 0004	Microfilm Reel	Frame Begins	Ends	
DATE:	04/30/87	PAGES:	2		
AUTHOR:	/				
ADDRESSEE:	/				
DESCRIPTION:	SUPERFUND PROJECT UPDATE				
7. 3. .	- 0005	Microfilm Reel	Frame Begins	Ends	
DATE:	05/18/87	PAGES:	1		
AUTHOR:	/EPA				
ADDRESSEE:	/				
DESCRIPTION:	SUPERFUND PROJECT UPDATE				
7. 3. .	- 0006	Microfilm Reel	Frame Begins	1	Ends 1
DATE:	03/11/88	PAGES:	1		
AUTHOR:	/				
ADDRESSEE:	/				
DESCRIPTION:	SUPERFUND PROJECT UPDATE				
7. 3. .	- 0007	Microfilm Reel	Frame Begins	1	Ends 1
DATE:	04/16/90	PAGES:	1		
AUTHOR:	EPA/				
ADDRESSEE:	/				
DESCRIPTION:	Superfund Fact Sheet : Arrcom Oil Recycling Facility Rathdrum				